

Harvard Medical Alumni Bulletin

July / August 1973



When cardiac complaints occur in the absence of organic findings, underlying anxiety may be one factor



The influence of anxiety on heart function

Excessive anxiety is one of a combination of factors that may trigger a series of maladaptive functional reactions which can generate further anxiety. Often involved in this vicious circle are some cardiac arrhythmias, paroxysmal supraventricular tachycardia and premature systoles. When these symptoms resemble those associated with actual organic disease, the overanxious patient needs reassurance that they have no

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Contraindications: Patients with known hypersensitivity to the drug.

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions

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Harvard Medical Alumni Bulletin

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Cover: The lackadaisical lion is found in
the upper left hand corner of a detailed,
four-color pictorial map of the Harvard
Medical area meticulously executed by
Vanderbilt's own Tom Wright. Copies
are available from the Alumni Office for
\$5.00.

Credits: Rick Stafford, pp. 9-24, 34-42;
Fay Photo, pp. 29, 31.

Overview

“Final Bankruptcy of a False Approach”

The recent cuts in federal spending is the final bankruptcy of a false approach to biomedical research and research training and is a far more serious crisis than many think, according to Dean Robert H. Ebert.

Dr. Ebert, in his presidential address to the Association of American Physicians, advocated the consolidation of the categorical Institutes into one National Institute of Health that would support basic biological research and clinical research on a non-categorical basis.

Although it is popular to place the blame for the cuts upon an un-sympathetic administration and to cast the problems in terms of a battle between executive and legislative leaders, Dr. Ebert believes this is a simplistic formulation of the problem, and a dangerous one. It presupposes that the Nixon administration has developed a new policy toward biomedical research.

Almost the exact opposite is true, according to the Dean, who feels that the actions of the present administration are entirely consistent with present policy and totally unimaginative. The decisions, he said, are based on the policy that the NIH “buys” programs and discontinues them when they are no longer effective or needed.

Public policy relative to biomedical research and training has been influenced little by universities and medical centers, he noted, but has been influenced in a major way by lay, non-professional members of the Councils of the NIH; by the categorical approach to the problems of disease, fostered in many instances by the voluntary health organizations; and by policies of large, private foundations whose role has been to invest in new programs of scientific and social importance and to provide only temporary support.

The Dean levied considerable responsibility for this failure on members of medical school faculties who formed the study sections in the various Institutes. Faculty members also, he noted, supplied the leadership of the specialty societies and the professional counsel to the voluntary health agencies.

Most faculty members, he continued, felt that they personally obtained most of their own support and support for their groups from NIH, and consequently, owed the university little or nothing. What they forgot was that they were the university.

When support was terminated, the university remained with the final responsibility; HEW, the NIH, the Bureau of Management and Budget could all say, “We are sorry, but it’s not our responsibility. After all, we were only buying programs and if medical schools over-built and over-expanded, that is your problem.” Indeed, the Cancer Institute could go ever further and say: “We now want to do business more and more on a true contract basis and if your faculty members will not cooperate, we will contract with private laboratories.”

Dr. Ebert further called for a sharp separation between the funding of medical education and research. “Bootlegging the support of education from research dollars,” he maintained, “has been one of the most destructive by-products of NIH policy.”

If there is to be any kind of permanency for the support of medical education, he asserted, it must come in significant part from the federal government and it cannot be tied to short-term programs associated with change in curriculum, increase in class size, or shortening the length of medical school experience.

What about the future? Dean Ebert believes that “we have the capacity to bring some meaning out of this crisis and that the biomedical research establishment will survive.”

Fund Report Highlight of Annual Meeting

During the annual business meeting of the Harvard Medical Alumni Association, the following officers were elected: Claude E. Welch '32, president; J. Englebert Dunphy '33, president-elect; and Samuel H. Kim '62, treasurer.

As a result of the balloting, the following were elected to the Alumni Council for three-year terms: Nathan S. Davis '47; Milton W. Hamolsky '46; and Edward D. Harris, Jr. '62. Retiring councilors are W. Gerald Austen '55; Samuel L. Katz '52; and John W. Littlefield '47. The Council regretfully accepted the resignation of John W. Kirklin '42 and heartily endorsed the appointment of Eleanor G. Shore '55 to complete Dr. Kirklin's one-year term. Dr. Shore is the first woman to serve as a councilor.

Readers will recall that last year Carl W. Walter '32 was named to the new position of Chairman of the Alumni Fund. His report, which was read during the business meeting, follows.

During the course of the year, we spent a great deal of time studying the various problems related to fund raising for the Medical School, and it became obvious that the idea of contacting the alumni by one letter each year was grossly inadequate. It became apparent that we had to make some arrangement to contact the alumni throughout the country personally at least once a year and begin a dialogue with them.

Hence we regionalized the alumni and each of you who live in a community where ten or 12 Harvard graduates practice medicine can expect to have someone visit you this year to discuss the practice of medicine, what Harvard is trying to accomplish, and what you would like to see accomplished. We have had several pilot regional programs in operation since last spring. There

is clearly a need for this kind of communication; obviously the alumni are interested in the School and would like to impart their enthusiasm as well as their problems to the School.

It is appropriate to recall that generations of Harvard doctors have given of themselves to build HMS. In the past they have attracted scholars to further the knowledge of human biology and also to ferret out the causes of human disease. What is more, they accumulated the financial resources to educate their successors to the practice of medicine. They served society and their communities well by fostering the maintenance of health and the care of the sick. Until the late 1940's, if you look at the history of the School, this was largely the proud accomplishment of the HMS alumni in their quest for excellence in the care of the sick.

Then came government financing in research and the role of alumni in the School and their responsibilities toward it became clouded. But now that the era of government largesse has spent itself, the alumni again emerge as a sustaining force in the destiny of HMS and I would like to impress upon you our responsibility for looking at the School in this light.

As I have reviewed the financial history of the Alumni Association, it is obvious that the alumni have become a living endowment of the School over a century or more. Their knowledge, thought, and energy are priceless human resources. In fact, they are a \$20 million endowment. I say this largely because that is my goal. I see it as not unrealistic to project annual giving at the rate of \$1 million a year. That is not burdensome to any alumnus in practice and that amount of money will be a significant factor in the financial strategy of the School. How significant is easy to estimate when you consider that our financial endowment, \$100 million, yields about \$5 million of loose change that can be spent for education. Much of this endowment is for specific purposes. If we could provide \$1 million of unre-

stricted funds, it would be a meaningful and catalytic contribution to the future of the School. Many people think this is too ambitious a goal, but I would remind you that each year \$21 billion is given to private charity in this philanthropic country. I think that Harvard Medical School can garner its share of this support from the private sector if the alumni throughout the land become alert to prospective donors and seek the aid of our Development Office to present the HMS cause to these donors and solicit their interest. Many of our biggest donors have had no previous connection with the Medical School; they have contributed either out of respect for prestigious performance or because some friend has guided them to HMS.

The last thought I would like to leave with you is that we have evolved several plans to help your own family finances. As you plan for your children's education or for your own retirement, I would invite you to explore the purchase of Harvard tax-free Health Education Facilities Act (HEFA) Bonds as a way to actually bring your earnings fruitfully to your family without the burden of the revenue man sharing in your income. I would also invite you, as you get a little older, to look at Life Income Trust, managed by the wizards of Harvard funds, as a way of providing security for your own retirement without having to worry about the vicissitudes of financial management of monies which you probably do not know about or are not competent to assume. Both of these plans, as developed by the Alumni Association, can be of great help in providing security for your family and for your own retirement.

Further information about HEFA bonds and the Life Income Trust may be obtained by writing to Dr. Walter at the Alumni Fund Office.

Promotions and Appointments

Clinical Professor

Bradford Cannon '33: surgery
Harold D. Levine '32: medicine

Associate Professor

Kenneth A. Arndt: dermatology at Beth Israel Hospital
Winifred W. Boos: biological chemistry
Harvey R. Colten: pediatrics
Richard Davidson: microbiology and molecular genetics
Joseph Eichberg, Jr.: biological chemistry
Max L. Goodman: pathology at Massachusetts Eye and Ear Infirmary
Elvin Harper: biological chemistry in the department of medicine
Arthur L. Herbst '59: obstetrics and gynecology at Massachusetts General Hospital
Alice S-H. Huang: microbiology and molecular genetics
Charles E. Huggins '52: surgery at MGH
Roland H. Ingram, Jr.: medicine
Norman Joffe: radiology at BIH
Sherwin V. Kety: pediatrics at The Children's Hospital
Susan E. Leeman: physiology
Vernon D. Patch '58: psychiatry at Boston City Hospital
Eric L. Radin '60: orthopedic surgery
Seymour Rosen: pathology at BIH
Arthur E. Rosenbaum: radiology at Peter Bent Brigham Hospital
Amnon Rosenthal: pediatrics at TCH
Samuel Silvermen '38: psychiatry
Thomas W. Smith '65: medicine
Jerry S. Trier: medicine
Gordon H. Williams '63: medicine
Myron J. Van Leeuwen: operative dentistry at the School of Dental Medicine
Robert R. Young '61: neurology at MGH

Associate Clinical Professor

Glen E. Behringer '45: surgery
Louisa P. Howe: sociology in the department of psychiatry
Grant V. Rodkey '43A: surgery

Assistant Professor

Oscar H. L. Bing: medicine
George L. Blackburn: surgery
Matthew A. Budd '60: medicine at Cambridge Hospital
Richard L. Burleson: surgery at PBBH
Peter F. Cohn: medicine at PBBH
Melvin L. DePamphilis: biological chemistry
Earl M. Ettienne: anatomy
Z. Myron Falchuk '67: medicine
James J. Galdabini '64: pathology at MGH
Jeffrey M. Gilbert: psychiatry
Richard N. Goldstein: Silas Arnold Houghton Assistant Professor of Microbiology and Molecular Genetics
Earl J. Kasdon: pathology at BIH
Yhu H. Lee: pediatrics
James R. Lehrich '62: neurology at MGH
David M. Livingston: medicine
Jacob J. Lokich: medicine at Children's Cancer Research Foundation
Raymond F. Maguire: pathology at New England Deaconess Hospital
Michael N. Margolies: surgery
Kevin M. McIntyre: medicine at West Roxbury Veterans Administration Hospital
Keith W. Miller: pharmacology in the department of anesthesia
John D. Mull: medicine at MGH
Carol C. Nadelson: psychiatry at BIH
Marion R. P. Neutra: anatomy
Kenneth Owens: medicine (biochemistry)
Paul H. Patterson: neurobiology
Mercedes A. Paz: oral biology and pathophysiology (biochemistry)
Richard O. Roblin III: microbiology and molecular genetics

Writers

Edward J. Rolde '61: psychiatry at Massachusetts
Mental Health Center
Robert D. Rosenberg: medicine
Graeme B. Ryan: pathology
C. Lynn Skelton: medicine
Denise J. Strieder: pediatrics at TCH
Ann E. Stuart: neurobiology
Dan Tulchinsky: obstetrics and gynecology
Paul M. Wasserman: biological chemistry
J. William Worden: psychology in the department of
psychiatry at MGH
Leroy S. Wirthlin '62: surgery

Assistant Clinical Professor

Harold S. Albert: psychiatry
Jerold G. Bernstein: psychiatry
John G. Clark, Jr. '53: psychiatry
Leonard J. Friedman '55: psychiatry
Stanley S. Kanter: psychiatry
William W. Meissner '67: psychiatry
Jiri Palek: medicine
Curtis Prout '41: medicine
Keith R. Rabinov: radiology
Randi V. Rosvoll: pathology
Joel Umlas: pathology
Paul L. Watson '51: psychiatry

Principal Research Associate

David H. Bing: biological chemistry
Philippa Claude: neurobiology
Ajit Kumar: surgery (biochemistry)
Edwin C. Moxon: otolaryngology (auditory physiology)
Phang-Cheng Tai: bacterial physiology
Christopher D. Warren: biological chemistry

Lecturer

Richard M. Ryan, Jr.: preventive and social medicine

The Harvard Medical Alumni Bulletin is looking for thought-provoking articles written by alumni. Challenging and authoritative commentary on the contemporary issues of medicine is particularly sought. We also welcome stories of unusual occupations or avocations that would be of general interest to our readers.

Although we are unable to pay for manuscripts, we believe that alumni-written articles are an essential part of the magazine and the total alumni program.

Letters to the Editor are always welcome and will be published, although the Editors reserve the right to withhold information at their discretion.

And, the Bulletin is always happy to receive Alumni Notes.

All matter should be addressed to: The Editor, Harvard Medical Alumni Bulletin, 25 Shattuck St., Boston, Mass. 02115.

Alumni Day

They Oughta Change the Name

by Daniel D. Federman '53

In a conservative environment like New England one suggests change only very timorously. Nevertheless, I believe we should change the name of one of our most treasured institutions — the teaching hospital. This idea may seem heretical. The teaching hospital is one of the shining educational achievements of medicine. At its best, it combines service to patients with the transmission of a noble tradition. It incorporates research and extends the boundaries of the science that underlies medicine. It establishes a democracy in which rank is based on knowledge and ability rather than on birth or grades, and it preserves the safety of patients while allowing new physicians to learn their profession.

Despite this, I think the name teaching hospital is too restrictive and may be inhibiting some important changes. For one thing, it hides and tolerates two fallacies that were pointed out by Oscar Handlin in a different context several years ago. The first of these is the assumption that what is taught is learned. Anyone who has graded a final examination knows that what is taught clearly isn't learned. The second error is the assumption that what isn't taught *isn't* learned. My example of this has nothing to do with medicine.

If you have watched a teenager who likes rock music, you know that as soon as she turns on the radio and hears just two bars of music, her foot is tapping, her hands are beating, her chin is bobbing and she's singing. She knows every note, every word, when the song came out, what the fellow who sings it does — and she was never taught it. In other words, she has learned it without being taught, and a whole pattern of response is cued by the briefest stimulus.

A second defect of the name teaching hospital is its implication that you need teachers in order to learn. It sets up a dichotomy between teachers and learners; it suggests that there must be an active and a passive group in education and that there are thus teaching and non-teaching hospitals. These considerations have led me to think that a new name would be desirable. I would like to change the name to "learning hospital," rather than teaching hospital, and to point to some implications of doing so.

First, for the teachers in what used to be called a teaching hospital, it serves as a reminder that the curriculum or sequence of ward rotations is but a small part of the

learning situation. Equally important is the faculty's performance as physicians from whom the students learn how to achieve the blend of science and humanism which characterizes the excellent doctor. Similarly, for the students and house staff, the new name should remind them that learning is an active process that requires involvement, critical analysis of new observations, energetic attack on available literature and the like. Finally, whereas only a minority are now "teaching" hospitals, every hospital can be a learning hospital. Every day of the physician's existence should be a learning day. When you come home at night your wife or husband shouldn't say, "What did you *do* today?" but "What did you *learn* today?" And if you have to say "nothing," from a narrow point of view that day was lost. It doesn't matter what hospital you are in, it ought to be a place to learn.

Thinking of every hospital as a learning hospital would also enable us to provide the right intellectual response to the new stress on peer review, on audit, on vouching for the quality of what we do, and on studying and assessing the quality of care. We ought to set our standards of first-class medicine and then see whether we come up to them. If we don't, let's teach ourselves something, let's learn, and let's improve. To me, that ought to be the lesson of the new emphasis on audit, and I think looking at every hospital as a learning hospital is a way to implement it.

But it will only work in one circumstance — when the self-demand for clinical excellence is established in the student during medical school and house staff training. The question, then, is how to develop this attitude.



Dr. Federman

Every outstanding medical school has two principal functions: the development and distant promulgation of new knowledge, and the education of future physicians. Since these goals should be complementary, there is no need for any conflict. The challenge of teaching medicine is constantly evolving, and I believe we are entering a new era which will require new solutions. To put this in perspective, I'd like to review the developments in departments of medicine in the major periods of medical education in our country. Before Flexner, medicine was taught largely in a preceptorship fashion, and there was little underlying science. The Flexner Report of 1910 stimulated the development of basic science departments in medical schools and a responsible interest on the part of the schools in a scientific approach. But clinical training before World War II was still largely a descriptive experience with a very limited scientific base. The next era, from 1950 to the present, has seen an extraordinary flowering of science in medicine. The largest stimulus was the National Institutes of Health and their support of clinical research, for which everyone who cares about medicine should be eternally grateful. During this time, an intellectual discipline underlying

clinical medicine developed. But another interesting trend was the remarkable growth of faculties in departments of medicine. Before World War II, few departments had more than one or two full-time people; the remaining faculty were practitioners who taught students as a part-time contribution. Since that time there has been a rapid increase of full-time faculty, largely stimulated by the availability of funds for research. Almost suddenly medical schools were faced with an established faculty in clinical departments whose growth had been nurtured by research funds, the award of which reflected one of the medical school's purposes (developing new knowledge) better than the other (educating physicians). In a recent presidential address, Dr. Ebert pointed to some of the consequences of programmatic support as far as the development of schools is concerned. For clinical departments, I think the development stimulated by the NIH was almost entirely beneficial, but we now have some imbalances which should be corrected.

The flowering of biomedical research was not an unmixed blessing; combined with significant social factors it contributed to two problems which now beset us. One is an inattentiveness to health care delivery; many people are now interested in that area, and I shall not discuss it here. A second is a denigration of clinical teaching, and I should like to focus on this for a few minutes. As the research in departments of medicine ap-

propriately becomes more fundamental, it tends to draw the investigator further from the patient. As training for research becomes more complex, it tends to shorten the clinical training of new faculty members. The full-time faculty are still required to do a lot of teaching of students and of house staff, but unless we modify current trends, they will do this teaching from a progressively attenuated base of personal clinical experience. In brief, because of their often minimal role in a clinically responsible capacity, they risk becoming amateurs. This is the more worrisome because simultaneously, clinical care in the hospital has become much more time consuming, complex, and dangerous. In other words, it requires committed clinical faculty responsible for patient care and simultaneously for its teaching.

I believe we must now develop a type of faculty who will exemplify this role; who will specialize in the teaching and practice of clinical medicine from a scientific base. These men and women must be well trained both clinically and in clinical research, and must continue to engage in patient care for a significant fraction of their time. They need to be based in the department so that they are right next to and constantly interacting with the progressively enriched research environment which we need to develop even further. This group needs to innovate in teaching methods and to take the teaching of medicine as a serious assign-



ment subject to critical evaluation; that is, subject to investigation. Rather than to promulgate prejudice, they must be able to demonstrate and report what's good about a new teaching method or why it's bad and should not be adopted by others. In other words, I feel that good teaching can be learned. Rather than assuming teaching skill in the faculty, I believe it should be a part of their training, and be both taught and evaluated. For two decades our model has been the person excellent in the three areas of patient care, teaching and research; but triple-threats are as rare in medicine as in football, and I believe that in the future, we should accept some differentiation. Within the faculty there will be some whose teaching grows predominantly out of their scientific work with a modest probably specialized, clinical base. This obtains now. But there should also be faculty whose teaching contribution is based predominantly on their clinical role with a significant scientific background as well.

There is, I realize, a legitimate concern that these teachers will be teaching from a purely empiric or phenomenological base that will become progressively divorced from the developing scientific understanding of their discipline. It is precisely to avoid this that I would put the teacher-clinicians physically, fiscally, and emotionally into the department of medicine and the faculty as a whole. In that context they can provide students and house staff with indelible models of clinical excellence from which a life-long professional commitment can be copied. I suggest that addition of this type of faculty member is not to displace research, but to complement and indeed preserve it within clinical departments.

To foster this development, a school has to provide unambiguous signals to young people by the appointment and promotion of people with these particular interests. I think many schools have denied themselves some of their best graduates who would have been interested in a career of this type, but have not seen a faculty role with which they could identify. Many departments have looked at this problem and been troubled by the problem of evaluating the teacher-clinician. This should not be too difficult if we accept that it is a proper subject of research. None of you have trouble picking the doctor in your community to whom to send your wife, so there must be standards. Similarly, we can define standards for teaching quality if we accept it as a subject of study and research and solve the problem. But it will require a self-confidence on the part of the school which most schools are reluctant to exercise. The research program of any school generates new knowledge which is published and recognized at a distance, and a school in Wyoming can write to New York and ask for an evaluation of its own faculty's work. The teaching and clinical activities of a medical school do not easily generate a distant reputation. A school will have to be willing to say, "These are our standards, this fellow meets them, that fellow does not, and we are going to proceed with confidence in ourselves." It is a difficult stance for search committees to adopt but I think it is a necessary one.

The University must also realize that a medical school is a special segment of a university. It is the only one in which the practice of the field is a requirement for teaching it and doing good research on it. The department of history has to teach history and do research on history, but it doesn't have to make history. But the clinical departments must do clinical work in order to foster pertinent research and to provide the proper teaching environment. Thus their faculty should include examples of excellence in this component of their activities.

In summary, I have tried to make three points. First, that every hospital can and should be a learning hospital, because doctors must continue to learn or else abdicate their goal of providing the best care for every patient. Second, this unswerving commitment to clinical excellence must be learned in medical school. Indeed, as far as clinical training is concerned, it is the single most important thing to learn in medical school. Third, I believe the setting for this type of learning, beginning now, will require the development of new full-time faculty, who work alongside the existing medical faculty in order to complete the spectrum which is first-class medicine. I think these people need to be trained, chosen, and ultimately rewarded for creative and outstanding performance in the teaching of modern, scientific, but very personal, clinical medicine.



Some Things I Didn't Learn About at the Harvard Medical School

by Paul O'Rourke '48

At the time of my graduation from this School. I conceived of my 25th reunion as a distant point in time when I could finally claim that I had completed the metamorphosis from a fosterling of my alma mater to one of her esteemed elders. Mark Altschule '32 may have had in mind a similar landmark when, in a faculty profile written for our class, he ruminated about "the factors which turn a ball of fire into a smouldering punk."

I wish to invoke the privilege of addressing you as an esteemed elder, or perhaps more appropriately, as a smouldering punk.

On frequent occasions, I have reflected on the nature of my preparation at Harvard for the private practice of family medicine. I remember that my limited choice of career was greeted by most of the faculty as prima facie evidence either of my density or my perversity.

Since this seminar deals with medical education at Harvard, I think it might be somewhat informative for an old grad to recount some things he didn't learn about at the Harvard Medical School.

Let me first pay homage to my alma mater. She did manage to etch an indelible commitment to excellence in patient care, to respect for the crucial importance of consultation, and to a cautious approach to therapeutics bordering on nihilism. These lessons in discipline were responsible for driving me out of private practice.

I reached my threshold of concession in the seventh year of a typical suburban practice. In the final six months, I kept a diary of my encounters with patients. I entered my diagnostic impression, and the workup, treatment, and consultation indicated. On the facing page, I later recorded what was actually done in each case.

A summary revealed that seven out of ten patients with significant complaints failed to follow recommendations which could not be classified as elective. The predominant reason was inability to pay, not lack of understanding or obstinacy. It was not really possible to predict the price which would eventually be paid by these patients for their reluctant neglect of conservative care.

I could no longer suppress my nagging doubt. The evidence compelled the conclusion that the fee system poses an ominous threat to the responsible practice of family medicine. For those blessed with high income, there is no problem. But for most people, inability to pay fees forces serious compromise in the quality of medical care.

The system is an open invitation for physicians locked in economic competition to undertake treatment beyond their training and competence. Unnecessary services are rewarded. Consultation is discouraged for fear of losing patients to consultants. Superior training is not necessarily a deterrent to the performance of procedures with tenuous rationale. Clinical judgment is almost unconsciously eroded by the profit attached to treatment methods of doubtful value. The reward of fees is a powerful temptation to reduce patients to the status of mere chattel. It degrades the practice of medicine.

To subject patients to unnecessary risks solely for profit ought to be regarded as criminal assault and punished accordingly. On the other hand, the denial of necessary care due to lack of ability to pay should not be acceptable in a civilized society.

If medical care is a right, it cannot be bartered as a commodity. The tradition of fee for service is primarily responsible for the widespread denial of the right to medical care, and lies at the heart of the chaos that now prevails in the delivery of health services.

I left private practice and turned to public health. But my education in the defects of our medical care system had barely begun.

My first job in public health took me to the Imperial Valley of California, a home base for Mexican-American migrant farm workers. The first day I made rounds at the local county hospital, I found a case of malpractice in every other bed. I was told that the hospital was being boycotted by the medical society, leaving care of the poor entirely in the hands of three harassed and inept county physicians.

The official explanation for the boycott was the absence of malpractice insurance coverage at the hospital. Negotiations with the executive committee of the medical society revealed the real reason for their stand. The board of supervisors had recently denied their demand for higher pay for the care of county indigents. The medical society was content to fulfill its own prophecy by fostering exactly what it claimed to fear — malpractice, the clear result of the boycott.

It took a year for them to have me fired.

Eventually, I accepted a position with the California Department of Public Health. In 1962, federal legislation was enacted to provide grants for the provision of health services to migrant families. I was responsible for establishing a statewide system of clinics located in peak cropping areas. Few migrants can afford private medical care, unless they are willing to accept charity. Their remarkable reluctance toward charity in any form is the earmark of a dignified and gentle character.

The migrant health program, however, immediately ran into vigorous opposition from local elected officials, spurred by growers and medical societies. Our efforts were labeled, "socialized medicine; federal interference with the private practice of medicine." They denied the need for clinics and argued that migrants were being treated without charge, when necessary, by private physicians.

We set about to test the validity of this claim. Physicians working in county hospitals were permitted to treat nonresidents only in the case of emergency. They agreed to keep for us a record of admissions of migrant families.

An obscene and tragic litany went into the record:

Infants moribund or dead of mid-summer diarrhea
of unattended births
of heat exhaustion

of staphylococcal pneumonitis

Children maimed by neglected injury

or poisoned with parathion

or drowned in a ditchbank

or vegetating from tuberculous meningitis

Adults dying of fulminating peritonitis

of gangrenous intestinal obstruction

of untreated congestive failure

of metastatic carcinoma of the cervix

The utter chaos of gross neglect became undeniable fact. The rhetoric of medical societies gave way to a stunned but reluctant compliance. A statewide system of migrant clinics was established



The Listener

and several family health centers were opened in home base communities.

Thus did California in the sixties catch up with the thirties. A public system of medical clinics was rebuilt — similar to that which once had been operated by the farm security administration in behalf of the refugees of the dust bowl. In those days of the Depression, I am told, the clinics were eagerly staffed by unemployed private physicians.

What had been accomplished? A segregated system of medical care had been established for the poor as their only resort against the threat of medical disaster.

When President Johnson declared War on Poverty in 1964, an opportunity was created to use federal funds to further combat the human degradation imposed on migrant families. Field clinics had helped to reduce the toll of neglected illness. But the health of migrants was in constant jeopardy because they were forced to live out of doors, along ditchbanks, under railroad bridges, out in the orchards in pitiful jetty-built shacks made of wooden peach crates, or in the rotting camps owned by growers.

The state mounted a major program to set up a series of public camps and to provide food, decent shelter, running water, laundries, basic sanitation, compensatory education, and child care. Efforts were initiated to reduce pesticide poisoning, heat exhaustion, and injury from farm machinery. Long-neglected laws relating to field sanitation began to be enforced.

In order to gain public support for government intervention in these matters, it was necessary to expose, through the media, the appalling living and working conditions of farm workers.

About once in each decade, in fact, the same story has been told with predictable, but fleeting public outrage. Growers reacted with defensive denial of both their responsibilities and the facts. They deeply resented any invasion of their business affairs by "communist agitators and radical priests."

This time prolonged attempts at persuasion were abandoned. In the face of invective and political threat, open battle was waged against the systematic denial of the legal and civil rights of farm workers and the injustice of a foreign imported bracero work force.

The new battlefield to improve the health of migrants became the intensive drive to organize a union — the only way to cast off the ancient tradition of servitude in California agriculture.

I am quite ashamed to admit now that I ever believed that my responsibility was limited only to the provision of medical services to migrant families.

Today, some farm workers are better off, but those who must continue to migrate in order to survive are being recruited to scab labor to break the strikes of their brothers. This year, growers and teamsters are joined in a corrupt collusion of raw economic power to smash the struggling and socially committed union of Cesar Chavez.

For his part, President Nixon has ordered all government agencies to stop using the word poverty. He has already dismantled the long-beseiged Office of Economic Opportunity. He wants to let the Migrant Health Act expire. He defends his actions on the naive or cynical assumption that local officials can be relied upon to maintain programs for migrant families. In the Imperial Valley, the medical society recently went to court in an attempt to cut off federal funds which support a family health center for migrant families.

The migrants are still very much with us, a stark symbol of the tolerance for injustice and degradation that pervades this prosperous, powerful, but complacent nation.

My next lessons in the gross pathology of our health system took place in the riot-scarred ghettos of Watts, Bedford Stuyvesant, East Los Angeles, and East Palo Alto. Doctors have all but deserted such places. It is a formidable job to try to bring them back to work in family health centers organized in the neighborhoods with active participation of community leaders. Attempts to build quality medical care in a ghetto are made extremely difficult because of the pernicious nature of the surroundings.

By definition, the ghetto is a crowded, ugly, angry, and hence, dangerous place. It is afflicted with a pervasive expectation of failure, with bitter skepticism, and with an appropriate kind of paranoia.

To the outsider who ventures there to help, the ghetto yields more suspicion and hostility than gratitude or sentiment. The tough, dedicated physicians who work in family health centers find satisfaction in the fact that they are practicing where they are desperately needed. As they accumulate experience in the daily struggle to cope with the avalanche of problems bred in the ghetto, they come to comprehend that good health for its victims will never be attained until the ghetto itself is totally destroyed.



The Speaker

What help has come into the ghetto from organized medicine and the medical schools? So far, precious little. In public, the hint of their potential commitment raises false hopes. In private, a predictable drone of disparagement is heard, which takes the form of such pious assertions as:

"These centers preserve and condone racial segregation in medical care."

"Medical Schools cannot afford to erode their primary responsibility to medical education by getting too involved in direct community service."

"We must not permit students to be exposed to second class medical care."

"These centers are expensive and inefficient. They are harbingers of what we can expect from socialized medicine."

"Consumer boards are meddling. Only doctors know how to organize and run health services."

The prevalence of this lofty disdain among middle-aged graduates of this medical school leads me to conclude that medical education here, in the past, has been profoundly deficient. Why?

Because, although we enjoyed the advantages of an elite medical edu-

cation, we were unable to comprehend the profound contradiction between elitism in medicine and excellence in community practice.

Because we were imbued with standards of professional integrity and competence without warning that these same standards can prove to be severe handicaps in the competitive jungle of the medical marketplace.

Because we learned almost nothing about the glaring inequities of the health delivery system.

Because we never examined the premises that underlie the fee system and its inevitable corollary, du jour segregation of medical care.

Because we never talked about the icy heart of organized medicine or the tragic impact of its brand of politics on the health of the American people.

Because we dealt with the poor only as bodies and illnesses supplied to prepare us from practice among those who can afford to pay us.

Because nearly all of our mentors warned that proposals for compulsory health insurance were the evil work of disloyal radicals bent on the destruction of "freedom of choice" for doctors and patients alike.

But my generation passed through these halls a quarter of a century ago, when a high level of clinical competence was considered to be a sufficient goal of medical education.

I am confident that this great medical school has long since adapted its educational experience to make it relevant to the realities of these trying times. I know that our alma mater is no longer guilty of sending innocents abroad without knowledge of what they must change in order to preserve their integrity and humanity as practicing physicians. I trust that a new generation of Harvard physicians will be able to perceive very clearly the enormity of the responsibility conveyed upon them by a superior medical education.

A Reappraisal of the Harvard Medical Curriculum

by David G. Freiman, M.D.
Chairman, Curriculum Committee

and Alexander Leaf, M.D.
Former Chairman

After five years of experience with the present Harvard Medical School curriculum, initiated in 1968, it seems timely to review the successes and failures of the program even as additional reforms are being planned. Unfortunately, the single most important aspect of the change — its impact on the future careers of our graduates — cannot be evaluated at this time, and we must accordingly restrict these comments to the more readily perceived but often subjective effects upon the purveyors and recipients of the system. It is hoped, however, that this summary of our experience to date, in addition to guiding our own planning, may also assist others in avoiding some of the more obvious pitfalls of the present program.

There are several reasons for the seemingly universal trend toward change in the medical curriculum today. Some are related to current fashions but others are cogent and serious. Among the latter are the following:

Increased medical needs now stem from heightened expectations of what modern medicine has to offer to an increased proportion of the world's population. It has been estimated that to provide a ratio of physicians to the population of the world of 1/800 would require an immediate increase of 3.5 million doctors. Even if a numerical solution were possible, it is highly unlikely that the distribution would be optimal to meet the needs. Obviously this deficiency is not shared equally by all countries, and there is already evidence of an overproduction of physicians in some of the more highly industrialized nations.

The functions of the physician are being met increasingly by a group of specialists and ancillary personnel with diversified skills and roles. An enterprising Soviet educator has, in fact, enumerated over 90 possible career goals for physicians at the present time. One may well ask, therefore, whether the medical educational experience need be the same for all or whether it is more appropriate to begin preparing the student for these diverse roles while he is still in medical school. Many students are now being admitted to medical school with better educational backgrounds in science and increasing numbers have already completed acceptable courses in various preclinical subjects. It is questionable whether such students should be required to repeat these experiences when they could spend their time far more profitably taking different or more advanced courses appropriate to their interests and aptitudes. At the same time, increasing numbers of students with differing scientific and general educational backgrounds are also being admitted, and providing for effective interdigitation of this group with the more advanced students requires substantial modification in curricular design.

With the postgraduate training period becoming longer and practically universal, it has been suggested that the time spent in medical school could be used to better advantage or even shortened without sacrificing significant learning experiences. As more of the trade school aspects of medical education are taught in the residency period, there is less need for the student to be capable of practicing immediately upon graduation.

Above all, the heightened pace of change within medical science and practice requires that students learn habits of continuing self-education rather than be taught solely for competence upon graduation or after completion of the residency period. The students of today will be at the peak of their professional careers in the year 2000. Realization of this fact should make us a little more relaxed about the volume of obscure and unrelated details that we are tempted to press upon them.

The Present Curriculum

In response to these considerations, the curriculum of 1968 was conceived with the following primary aims in view:

To allow more flexibility to meet individual student needs, and
To cultivate habits of independent thinking and scholarship in order to insure continuing accumulation of knowledge after graduation.

It was hoped that these goals could be obtained by:

Reducing the amount of factual information pressed upon the students and allowing them time to think, read, and discuss in a graduate school atmosphere;
Teaching a "core curriculum" in a limited time and by a coordinated interdepartmental effort, thus capturing time to allow each student freedom to choose additional courses closely related to his or her interests;
Increasing the time available in all years for elective courses designed to explore subjects in depth and to be taught primarily on a departmental basis;
Increasing the time allotted to the social and behavioral sciences and intermingling them with the biological and clinical sciences so that their mutual interactions would become apparent; and
Maintaining the motivation of entering students by introducing them to patients earlier in their training.

The program as finally implemented is illustrated in Figure 1 and has the following essential features:

HARVARD MEDICAL SCHOOL

GENERAL PLAN OF INSTRUCTION

YEAR I

	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.
ORIENTATION	CELL BIOLOGY					HUMAN BIOLOGY I					HUMAN BIOLOGY II	VACATION
	Biochemistry; Microbial and Human Genetics; Histology; Cell Physiology; Biostatistics; Social and Behavioral Science				Histology; General Pathology; Immunology	Gross Anatomy; Embryology	Circulation	Respiration	Kidney	Bone; Skin	Nervous System	

YEAR II

		HUMAN BIOLOGY III										
Hematology	Gastro-intestinal System	Infectious Disease	Endocrine; Reproduction	or	INTRODUCTION TO THE CLINIC	or	CLINICAL CLERKSHIPS or ELECTIVE COURSES					
		EXAMINATION OF PATIENT (Mon. & Fri. A.M.)					BASIC SCIENCE ELECTIVES or RESEARCH					

YEAR III

CLINICAL CLERKSHIPS or ELECTIVES	CLINICAL CLERKSHIPS or ELECTIVE COURSES
or	
INTRODUCTION TO THE CLINIC	

YEAR IV

CLINICAL CLERKSHIPS or ELECTIVE COURSES

Winter recess (2 weeks), Spring recess (1 week) and a minimum of one month vacation per year are included but not indicated in the schedule.

A core basic science period occupies the first one-and-a-half years. Following a brief orientation period, the first semester is devoted to Cell Biology and is primarily concerned with the biochemistry of normal and diseased states, human, bacterial, viral and molecular genetics, and the interrelation of structure and function at the cellular and molecular levels. Although organized as a coherent block of information, the subject material is largely presented by discipline, permitting students with appropriate background and demonstrated competence to opt out of one or more portions of the program and to substitute more advanced courses, to reinforce areas of knowledge in which their backgrounds are weak, or to pursue research or tutorial programs tailored to their needs and interests.

During the following year, including a portion of the first summer, the course in Human Biology is designed to extend the student's knowledge of the scientific basis of medicine from the level of the cell to that of the tissues, the organs, and the body as a whole. The course is organized by organ systems, represents a coordinated teaching effort on the part of the various pre-clinical and clinical departments, and includes large segments of material originally taught as parts of separate courses in anatomy, histology, embryology, physiology, pathology, pharmacology, pathophysiology and clinical medicine.

During the three semesters devoted primarily to basic science, the social and behavioral sciences are introduced by a series of lectures and field experiences, followed by a group of colloquia designed to provide a forum for presentation and discussion of a variety of socio-medical topics bearing on the health of both the individual and society in general. These seminars in Social Biology were organized at the request of, and with the participation of, members of the student body.

Dr. Freiman's Alumni Day speech, "The Pathology of Curriculum Reform," was based on this paper.

From the time of admission and throughout the first year, students are assigned to tutors, usually young clinicians, whose role it is to provide them with insight into the way physicians function and how their knowledge and skills are applied. Toward the end of the third semester, the students are assigned for two mornings each week to one of the teaching hospitals where they begin to work directly with patients and to acquire clinical skills.

The clinical experience required of all students includes an initial eight-week period of Introduction to the Clinic during which the students spend essentially their full time at the hospitals augmenting their clinical skills. This is followed by a minimum of eight months of clinical clerkship. Three of these eight months must be a continuous experience in medicine and two months a continuous experience in surgery. The remaining three months must be selected from other core clinical clerkships, each four weeks in length, which include pediatrics, obstetrics and gynecology, neurology, psychiatry, orthopedics, radiology, and a combined dermatology - ophthalmology - otolaryngology clerkship. Students have the option of choosing additional core courses as part of their elective programs if they wish, and almost all do so. The order of these clinical courses is not prescribed and may be taken in any sequence or interdigitated with elective courses as desired. Students may also defer the Introduction to the Clinic course until the fall of their junior year freeing the fourth semester for basic science courses or for research.

The elective time available comprises 15 to 17 months during which a wide variety of course options is available. Students are strongly urged (but not required) to devote at least four of these months to further exploration in the basic sciences. They may also spend a portion of this time in approved programs at Harvard College, Massachusetts Institute of Technology, or other universities in this country or abroad, or participate in com-

bined programs with the Harvard School of Public Health or the Kennedy School of Government. In order to guide them in their decisions, they are assigned faculty advisors whose function it is to assure choice of an appropriate and well-balanced program tailored to their interests and eventual career goals.

Critique of the Current Program

There has now been sufficient experience to permit examination of some of the more obvious successes and failures of this program. The general aims remain unimpeachable but the actual implementation too often fell short of these aims, or solutions brought with them inherent contradictions which came to dominate the outcome of the change.

In some respects the new program has been undeniably successful:

The core material has been reduced, making it possible for many students to begin the clinical experience earlier (by the middle of the second year) and to take advantage of a more extensive and freer elective program.

The integrated Human Biology course permits better coordination of the basic science material and is taught with significant reduction in unplanned repetition and overlap.

Normal and abnormal structure and function are taught in closer apposition one to the other with resultant mutual reinforcement.

There has been a significant and highly desirable increase in the degree of interaction between the preclinical and clinical faculties.

Opportunities have increased for qualified students to take alternative courses in parallel with the core although these are largely restricted to the first semester of the first year and have remained limited in number and variety. Students with special interests in one area may take "in depth" courses in that subject while at the same time the

core curriculum keeps them abreast of their classmates in other essential areas. Alternative courses in biochemistry and a course in microbiology taught by Bernard D. Davis, Adele Lehman Professor of Bacterial Physiology, pioneered in this direction.

A serious effort was made to bring the teaching of the social and behavioral sciences into the curriculum. The first year field course and seminar series can be claimed as qualified successes; didactic sessions, on the other hand, have had their traditional difficulties in competing for student interest and attention with the more rigorous biosciences or the glamorous clinical courses.

Unfortunately, these advantages have been acquired at a price:

Teaching a core curriculum has meant sifting out material thought to be essential for all students and teaching this in less time than had previously been spent. In many instances this has resulted in a more superficial course than many members of the preclinical faculty have been happy to teach. Decisions concerning what is or is not "relevant" are difficult and many lecturers have been faced with the frustrating and often humiliating task of deleting subject material dear to their hearts and on which they may have spent years of effort. In addition, the limited student contact possible during the short and highly integrated time blocks makes it exceedingly difficult to get to know the student well and complaints are often heard that teaching is less enjoyable and rewarding, that the program does not permit a proper disciplinary development of the material taught, and that opportunities for departmental recruiting have diminished.

In the integrated presentation of Human Biology, members of departments such as medicine and pathology have acquired an increasing share of the teaching while their preclinical colleagues have been called upon less and less. This is partly due to pressures to increase the clinical orientation



Dr. Freiman

of basic science teaching. It is also, however, the consequence of the development within clinical departments of the many specialists who are now required to bring the large body of medical knowledge to bear on clinical problems and who must have expert knowledge of the structure and function of the organ systems that constitute their specialties. Since no basic science department is large enough to house experts in each of these areas, members of the clinical departments, and particularly the department of medicine, have gradually found themselves teaching at all levels and, in many instances, becoming heavily overcommitted. At the same time, the gradual erosion of the teaching roles of the preclinical departments has been deeply disturbing to their members who have begun to examine the *raison d'être* for their presence within the Medical School.

Integrated teaching by its very nature requires a major commitment of faculty time. About 40 members of the faculty are involved in teaching the renal block alone, and although the course lasts only two-and-one-half weeks, many of these instructors are tied up virtually completely during this period. Other blocks require even greater commitments; the section on infectious disease, for example, involves more than 75 instructors from six departments over a period of six weeks.

The integrated Human Biology teaching has proved highly satisfactory for many students and some have been enthusiastic. The coordinated presentation of normal and abnormal structure and function in limited time, however, permits very little repetition and reinforcement of the material until the clinical clerkships. In addition, the blocks are short and the experience very intensive. If students miss any part, the course is likely to be over and the next block occupying their attention before they can catch up. Weaker students, therefore, frequently find themselves falling farther and farther behind their classmates and faced with limited opportunity to make up the work until the following year when scheduling of the block is likely to conflict with other classes. This form of teaching also makes it difficult for students seeking advanced standing to identify subject material in a manner that permits them to be exempted from specific course work already taken, and to use the freed time more profitably.

In an effort to define a body of core information in each field, a detailed written syllabus has evolved and has been revised and updated yearly. It was hoped that this would not only aid students in assimilating as much as possible in the short time allotted to each block, but would free them to listen to, rather than transcribe, the lectures, and above all to go beyond the core and read and study independently. Unfortunately, all too often such careful definition of "essential" material has actually tended to discourage collateral reading and to inhibit further pursuit of any knowledge that does not seem immediately pertinent.

Efforts to change the manner and context in which some subjects were being taught have also created difficulties. Together with appointments to chairs of clinical pharmacology at the hospitals, it was expected, for example, that more pharmacology would be presented in conjunction with the clinical subjects. The amount taught in the preclinical period was accordingly reduced, and students

came to Part I of the National Board examinations relatively unprepared to be examined in pharmacology at that time. When our national ranking on this portion of the examination inevitably declined, the situation created considerable anxiety among both faculty and students, and the pharmacology department was placed under great pressure to provide crash courses designed to reverse the trend.

Perhaps the most serious mistake made in implementing the present curriculum was the failure to have a strong elective program ready at its onset. What was needed were some well organized groups of elective courses capable of providing a graded experience starting with one of the sciences basic to medicine and progressing to its applications in the clinical setting. What evolved was a disorganized compendium of offerings, consisting mainly of courses already in existence and often with far too thin an intellectual content to provide the in-depth experience vital to the success of the program. It is still possible, of course, for students to develop, on their own initiative, almost any conceivable type of elective program, and many have used this time effectively. With an inadequate advisory system, however, too many others have used their elective time to prepare themselves for, and relieve their anxieties over, pending internships rather than in advanced level courses capable of tapping effectively the resources of a large and distinguished faculty. Indeed, the fact that most students, once embarked upon their clinical courses, show little inclination to return spontaneously for an "in-depth" elective experience in the basic science departments has proved to be a great disappointment to this portion of the faculty and has contributed in no small measure to their dissatisfaction.

An additional factor, not directly related to the curriculum design, contributed significantly to the problems associated with this experiment. A pass-fail system of grading introduced almost simultaneously was restricted to the pre-clinical period in the belief that it would reduce unhealthy competition in the core basic science courses where close personal evaluation is difficult, and at the same time permit more detailed evaluation of the students at the bedside or in the elective courses where the student-instructor relationship is closer, and where performance may be expected to have greater relevance to their subsequent clinical careers. Unfortunately, however, this device served only to increase the dissatisfaction by down-grading the importance of the basic sciences in the eyes of some students while removing what some members of the faculty consider to be an incentive for acquiring more than a minimal knowledge of material fundamental to every branch of medicine.

Recommendations for Future Change

It has been repeatedly pointed out that the medical school experience can no longer be considered in isolation, but must be viewed as part of an educational continuum beginning in the undergraduate college and extending through the residency period. Any rational program, therefore, must make it possible for students to make maximal use of their prior experience and background, and to avoid, wherever possible, excessive anticipation of those highly specialized areas of activity that will occupy the postgraduate years. Students must also be able to structure programs suited to their needs with assurance that they will be able to attain, as expeditiously as possible, whatever level of excellence is demanded of them by the faculty, the licensing authorities, and their own standards. This will require further changes in curriculum designed to correct some of the deficiencies inherent in the current program without, if possible, sacrificing the advantages.

It will be necessary to develop a group of alternative programs within the curricular structure. The present program has clearly fallen far short of providing the rich intellectual experience of which the faculty is capable. Concentration of these talents into a number of defined channels, however, could provide the necessary depth while meeting more adequately the needs and expectations of a group of highly motivated students varying widely in interests and backgrounds.

The opportunities for exemption and for alternative elective courses during the first semester, although limited, represent preliminary steps in this direction as do the broader options available during the clinical years. In addition, a prototype for a distinct and identifiable track already exists in the Health Sciences and Technology Program, which is jointly sponsored by Harvard and the Massachusetts Institute of Technology, and includes a group of 25 preselected medical students with a particularly strong interest in fundamental science and in the interfaces between the biological, physical, and engineering sciences. Such parallel programs will probably be most effective if they are oriented primarily toward interests rather than career goals because most students fail to make a definitive choice of career until quite late in training, usually after some clinical or even postgraduate experience. It is essential, however, that a specific career plan as it evolves while in medical school will not be compromised by the program chosen on admission, and that all programs clearly converge on the ultimate goal of all medical students — their education as physicians, and their eventual ability to practice medicine.

It will be necessary to provide a more realistic definition of the fund of knowledge that each student must acquire regardless of career choice. Any effort to define this in terms of a "core" of specific information is clearly foredoomed since no two members of the faculty can agree on content; what one considers too superficial another considers too detailed. There is

general agreement, however, that the student must become familiar with the conceptual framework of the various disciplines which contribute to and support the science and art of medicine, and that some of these disciplines must be explored in depth. All students should also have, either in college or in medical school, at least one major quantitative laboratory experience to insure their understanding of the difficulties inherent in obtaining and interpreting quantitative data.

For some subjects, it will be necessary to develop parallel courses differing in orientation or depth.

Implicit in the concept of a multiple-track curriculum is the availability of course options that make it possible for the student to explore certain subjects in greater depth than others, or to choose a course in which the essential subject material is presented in a fashion most appropriate to the chosen track. In some cases two introductory courses in the basic and behavioral sciences should be available, both presenting essential concepts but one requiring more time and proceeding into considerably greater factual detail than the other. One or more advanced courses should also be offered on an elective basis for those students who wish additional experience in these subjects. No significant change in the clinical course patterns is required since the multiple options now being offered at the various teaching hospitals already provide variety in content and point of view.

It will be necessary to offer more of the preclinical courses in a longitudinal or semester format. The development of alternative programs and multiple options makes it essential that the time allotted to each course be clearly defined. This is difficult to accomplish with coordinated, subject-oriented



Oldest alumnus to attend Alumni Day is Henry W. Godfrey '06, left.

teaching in time blocks of varying length and requiring a particular sequence for orderly presentation of fundamental information. A longitudinal arrangement occupying a whole semester or some fixed portion, on the other hand, is far more flexible; teaching hours are predetermined and courses can be substituted or arranged in any desired sequence subject only to their availability in the time desired. Such an arrangement makes it possible for qualified students receiving credit for competence in basic science acquired before admission to move ahead more rapidly instead of marking time, as they now must do, while other less well-prepared students catch up. Furthermore, removal of the artificial barriers created by block scheduling may well encourage more active exchange of faculty, students, and courses between the other portions of the university and the medical school. Students in academic difficulty will be able to proceed more slowly by deferring a course without undue loss of time or the heavy demands on the faculty for special tutoring that this now entails. Extension of courses over a longer period should also make it possible for the instructor and student to get to know each other better, provide more assimilation time, allow more time for adequate evaluation of student performance and proper feedback, and, hopefully, help to reverse the trend toward greater and greater dependence on the

syllabus at the expense of other sources of information.

In some respects, of course, a return to the old semester system is regressive. There is serious danger, for example, that independent courses in basic science largely under departmental control may again result in excessive reduplication of information or loss of relevance to medicine. Once the student is no longer required to be a captive audience in a single course offering, however, competitive pressures and general faculty awareness may help to reduce this danger. Current experience with the multidisciplinary approach and with increased clinical input has also been sufficiently successful, in some instances, to insure survival, and those courses concerned with pathophysiology are intrinsically multidisciplinary and will undoubtedly continue to be taught in this fashion whatever the format.

It will be necessary to provide greater input into the teaching of the behavioral and social sciences. In spite of the undeniable need, the increased allotment of time, and the courses designed to date by both the faculty and the students themselves, the contribution of these sciences to the education of the modern medical student remains inadequate. This is attributable in part to the nature of the subject material which is often controversial and does not lend itself easily to the didactic approach. The fact that the major faculty strength in these areas lies outside the medical school in other segments of the university also poses a problem, however, and it is possible that teaching in these areas may be enriched by drawing more heavily upon this faculty. In any case, courses must be designed with clearly stated goals and with sufficient weight and content to justify time diverted from the other more traditional courses. More clinical programs demonstrating the applicability of these sciences in the health care system must also be developed. This is essential if they are eventually to acquire status as true preclinical disciplines and if there are to be appropriate role models for the students to emulate.

It would be desirable to provide a more meaningful patient-contact experience early in the program for the interested student. The impatience of many students to proceed as quickly as possible to working with patients, which they legitimately view as their main purpose in coming to medical school, is one of the major sources of student dissatisfaction during the pre-clinical period. Any way in which even earlier exposure can be brought about for the interested student, without compromising training in the basic sciences or putting him in a position for which he is educationally or emotionally unprepared, will at least help to maintain motivation and may also reinforce the role of the basic sciences in clinical medicine.

Some revision of time allotment for specific clinical courses seems desirable. There seems little reason to change appreciably the basic requirements or overall length of the required clinical experience, or to alter the highly flexible arrangement whereby the core clerkships and the elective courses can be interdigitated. It was expected that almost all students would elect additional clinical courses and, with the possible exception of a few planning for careers in basic science, this has in fact proved to be the case. Some of the clerkships, however, are too short to provide an adequate experience, and some

time adjustments will probably be necessary. It also seems desirable to combine the primary clinical experience now including Examination of the Patient (physical diagnosis) and Introduction to the Clinic (general introductory clerkship) into a single continuous course as has already been successfully tried at the Beth Israel and Peter Bent Brigham hospitals. This will probably offer greatest flexibility if designed as a longitudinal course capable of being taken in conjunction with one or two additional courses in basic science during the second year, and need not necessarily be offered at the same time at the various hospitals.

A major revision of the elective program is necessary. The original and still valid purpose of the elective period was to permit students to acquire a broader experience than the required core alone could provide, and to give them the opportunity to explore some area of special interest in depth. With a large number of courses of varying quality available, and with few rules and little effective guidance, it is not surprising that this vital portion of the program has proved disappointing. At least three changes are required if the original aims are to be realized:

1. It will be necessary to categorize all elective courses clearly by type and content. This is essential if the student is to be able to choose a balanced program with appropriate orientation and substance. A system of course credits will probably be required in order to insure an appropriate course load for each student. A credit requirement for graduation could also aid in insuring that each of the several tracks represents an appropriately challenging and approximately equivalent educational experience.

2. It will be necessary to develop well-defined areas of concentration one of which should be elected by each student. Our experience to date clearly indicates that many students, when left to their own devices, seek a diversified and often superficial experience in a misguided effort to be comprehensive. Feeling insecure in their knowledge and ability to cope with the patient and his problems, they also tend to anticipate, in many instances, experiences that are more appropriate to the postgraduate period. Relatively few, therefore, can be encouraged to explore subjects in depth, or to return to the basic sciences before their clinical hunger has been satisfied. Requiring each student to declare an area of concentration provides a means of assuring this without limiting unduly the student's desire to diversify his experience. A program approximately one semester in length, which need not necessarily be taken in sequence, should consist of both clinical and basic or behavioral science courses and would be related to such general themes as oncology, immunology, genetic disease, neural science, mental health or human reproduction. A specific number of course credits might also be used to define the concentration requirement. In any case, lists of carefully evaluated and weighted courses appropriate to each area would be required. By advance designation of areas of concentration, members of the faculty would also be provided with some indication of the degree of student interest and could plan their courses accordingly.

Clearly, the listener has a vested interest in the curriculum.



3. It will be necessary to provide a more effective advisory system to guide students in their elective choices. The present plan has proved inadequate in part because the rules governing the elective program have not been clearly formulated, and in part because no adequate mechanism has been developed to keep the advisors properly informed. Advisors, aware of the rules and of the various courses available, familiar with administrative channels of the school, and kept continuously informed of their advisees' plans and academic progress, can provide an important source of support, particularly for those uncommitted students who are uncertain of direction and require guidance in making an appropriate choice.

It is essential that planning for change be sufficiently advanced and detailed prior to implementation to permit smooth transition to, and orderly operation of, the new curriculum. Implementation before planning is complete, or appropriate course and administrative mechanisms are available, inevitably leads to confusion, dissatisfaction and, most serious of all, loss of confidence in the principles underlying the change. Every detail need not necessarily be complete before the first change is instituted, but there must be reasonable assurance that each segment will be ready when required and that both students and faculty are given sufficient lead time to plan their schedules and programs effectively.

It is essential that effort be directed at improving the overall quality of teaching if any curriculum, however designed, is to be successful. Thus far we have dealt largely with the structure and content of the curriculum and little has been said regarding teaching methods which in most instances have changed little since the days of Hippocrates. Much remains to be done in this area. We are not yet sure, for example, whether the written or the spoken word provides the best stimulus to learning, or to what degree this varies with the individual student. It is clear, however, that active learning is more



desirable than passive; less use must be made of the lecture and more of the small group seminar and the problem-solving exercise. Such devices as programmed instruction and audiovisual aids have had little rigorous testing of their efficacy, yet vast sums of money can be consumed by the newer technology. Teaching seminars for faculty, with open mutual criticism of each other's performance, provide another mechanism whereby teaching may be improved. Whatever methods are used, however, it is essential that the interaction between student and instructor be direct and close if the mutual stimulation essential to effective teaching and learning is to be possible.

It would, of course, be wholly unrealistic to assume that all of these recommended changes, however desirable, can be accomplished without modification or compromise, or that the attempted solutions of some of our present difficulties will not create new problems in their stead. Whatever may be accomplished with curriculum design, however, will be of little avail if it fails to serve its ultimate purpose — the proper education of the

physician. There is a widespread tendency among students today to assume that, if the instructor works hard enough to present information effectively, little effort will be required on their parts to assimilate it. Unfortunately, many members of the faculty have too readily accepted this premise and have assumed the onus of blame for failure of the student to learn. In considerable degree the fault is indeed ours, and, as teachers, we are obliged to do everything possible to present information in as interesting, lucid, and relevant a fashion as possible, while keeping constantly in mind that the act of imparting information by no means guarantees that it is learned. There is no need to feel guilty, however, if students must work as hard as they can to master it. This requires many hours in the library, in the study, and in the clinic rather than the few hours of lecture or classroom time to which they are formally exposed. Learning is not easy, and finding ways and means of maintaining student motivation and encouraging them to expend and sustain the effort necessary to accomplish the task remains the major challenge facing the faculty in the years ahead.

The Private Foundations and Education for Medicine: The Past and the Future

by Carleton B. Chapman '41

American private foundations, despite punitive tax legislation in 1969 and confident predictions of doom from a strange and not-so-strange collection of sources, have suddenly assumed critical importance in the academic life of the nation and there is a possibility that they may, for a time, be more important and more influential than they have been at any time in the past. But can they recognize, and react effectively to this new, dramatic and transient climate?

The question cannot be answered with assurance as yet; but there is a possibility that the foundations will respond with courage, perception, and vigor. It will take some doing. Part of the problem is that the foundation world has its own set of complexities and vague nuances, only a few of which have been laid out in print and many of which are more intuitive than rational. Much of this grows, of course, from the all-inclusiveness of their purposes and the alleged desires of their founders as stated in many of their charters. The Commonwealth Fund, for example, was set up "to do something for the welfare of mankind"* in the words of the original donor. The Rockefeller Foundation's stated purpose was simply "to promote the well-being of mankind throughout the world."** The good and the well-being of mankind are, of course, rubber yardsticks. They mean one thing to the president of a beleaguered university, something else to a church official bent on forwarding The Message to the heathen; something quite different to a political activist; and something

very different indeed to a sharecropper in the deep south.

However this may be, the foundations, in the first half of the century, obviously believed (among other things) that the well-being of mankind could most effectively be served by encouraging higher education and by improving the physical and mental health of our species. In education, the focus has been rather heavily on professional and preprofessional programs, with emphasis, from time to time on their medical components. In recent decades, mainly since the end of the World War II, some foundations have taken gambles on social and quasi-political topics which has, rather predictably, brought them as a group into conflict with government.

Whether all this activity has, in the past, represented optimal use of tax-exempt, and therefore *public*, funds may be debatable; but on balance, much of the record is undeniably remarkable. Where, for example, would American higher education be if there had been no private foundations in the first half of the century?

American Private Foundations Today

The legal precedent for private foundations goes back at least to Elizabethan England but, as we know them today, they are creations of the late 19th and early 20th centuries. There are some 26,000 of them in the United States today, with total assets of about \$25 billion and annual expenditures of around \$2 billion. But they fall into fairly clearly defined categories: the Bigs, each with \$100 million or more in assets; and the Smalls, with less — usually much less — than that. Only about one tenth of the total number have assets of a million dollars or more and only

33 fall into the big category as defined above.¹ The distinction is an important one largely because most of the Bigs operate nationally or internationally, while the Smalls are usually concerned solely or mostly with local needs. My reference throughout is to the Bigs.

As for the activities that are legally allowable for the foundations, the Internal Revenue Code lists religious, charitable, scientific and educational purposes, among others.* But lawyers and legislators have, on occasion, resorted to a definition made by Justice Gray of Massachusetts in 1867. Justice Gray, touching on most of the items now listed in the Internal Revenue Code, also mentioned ". . . lessening the burdens of government,"² a point that the Internal Revenue Service, by its omission, seems to consider unimportant or inappropriate. The reason may be that, after World War II, government took over virtually all the domestic programs in which the foundations had pioneered during the earlier part of the century. Today it seems that, to some federal officials, certain foundation efforts in recent years, such as encouraging minority voter registration, actually render the burden of government more, not less, burdensome. In any event, the Tax Reform Act of 1969 makes it illegal for the foundations to engage in what may, by ill-defined criteria, be considered political activity. The same Act placed a four percent tax on foundation incomes and set limits below which annual expenditures may not fall. Thus, there are no fully tax-exempt private foundations at the present time.

Not all of which is bad, of course. The law has closed certain loopholes which formerly permitted a few foundations to be used for per-

* Mrs. Stephen V. Harkness, in conveying the first gift of \$10 million in 1918. The Articles of Incorporation specify nothing more than "charitable purposes."

** Act incorporating the Rockefeller Foundation, New York State legislature, 1913.

¹ Section 501(a)(3).

sonal purposes and to circumvent their obligation to serve the public good. It will sooner or later almost certainly have the effect of forcing some small foundations to liquidate or to combine with other foundations. But none of this will affect the Bigs very significantly except that the four percent tax on income will leave them with less money to spend. And for better or for worse, the new tax law will make the foundations much more cautious about venturing into areas that may, for any reason, be considered to be political. This is potentially a serious limitation. One might argue that the greatest threat to our national integrity today is not the collective deficiencies in the health area but, rather, something to do with the definition and administration of justice. It has even been argued, rather simplistically, that since most of those indicted or convicted in the Watergate and related scandals were lawyers, there is, *post hoc*, something seriously wrong with legal education in the United States. In any event, assuming that the private foundations, domestically at least, wish to do the most they can with the resources available to them for the good of the country, it might not be logical to choose health and health education as their principal focus.

But the conflict, actual and potential, with government makes the health field, including medical education, a continuing probability, since health, with the possible exception of legislative proposals having to do with health care delivery, is not especially sensitive politically — for the moment.

The Foundations and Medical Education, 1910-50

But times were different before World War I, when political complexities were less perplexing than at present and when American medical education was undoubtedly in great disarray. Reform in medical education was considered by the Carnegie Foundation and by the several Rockefeller charitable trusts to be a logical means of “promoting the well-being of mankind,” in this country and abroad.

It was Carnegie Foundation money that backed Flexner’s call for reform of medical education, and it was largely Rockefeller money that implemented the reform. Beginning in 1913 the General Education Board (also a Rockefeller creation) and the foundation spent something over \$100 million on American medical schools. At start, they enabled Hopkins to launch its famous experiment with full-time faculty by giving the school a sizable endowment for the purpose. Within a few years, the same largesse was extended to Washington University, University of Chicago, and Yale; in each case, there was a matching provision of some sort. It was Rockefeller money — \$17.5 million of it — that started Vanderbilt Medical School. Then came large gifts to the medical schools of various state universities, including Iowa, Colorado, Oregon, Virginia, and Georgia. Cincinnati was also a beneficiary and so were Howard and Meharry, the latter to the tune of \$8 million. Continuing its emphasis on massive support rather than on scattered small grants, the two Rockefeller charitable trusts moved to support Harvard, Columbia, Cornell, Tulane, Western Reserve, Rochester, Duke, and others. Then came the NRC fellowships, designed to assist promising men and women to become qualified for academic careers in medicine. As Fosdick points out, Rockefeller money, “. . . matched many times over by the generosity of scores of citizens like Rosenwald in Chicago, Eastman in Rochester, and Harkness in New York, took the teaching of medicine in the United States from the discreditable position it occupied in 1910 and gave it a status which it shares with only a few other countries in the world.”³

That was the beginning of it. Then Rockefeller money went to establish or upgrade medical education in the rest of the world, including China. And more or less parallel, Rockefeller money was supporting biomedical research via the Rockefeller Institute and individual project grants from the Foundation. Nor was this all. It was the stimulus of Rockefeller backing that established schools of public health at Hopkins, Harvard, and Michigan, not to mention other such institutions in foreign countries (21 of them). And finally, although it needs no detailed description, it was Rockefeller money, administered by the Sanitary Commission and the Foundation’s Division of International Health, that set the vast international health activity in motion, mostly before World War II. It was, in fact, foundation money, in large measure, that created the solid base on which the WHO was able to build. The Commonwealth Fund, operating on a much smaller scale beginning in 1919, can point with considerable pride to its pioneer efforts in funding many rural health projects, mostly on the preventive and public health side, in the twenties and thirties. It was also calling attention, by its awards, and publications, to the mental health field. And it, like The Rockefeller Foundation, was all along supporting medical research in medical schools.

There can be little doubt that it was these various far-sighted activities that gave our own federal government its cues after World War II. The net effect was that virtually the entire effort came to be backed by huge infusions of public funds. And, as government moved in, the foundations began to move out. Support for medical educational endowment and construction fell to a very low order among foundation priorities. So did support for biomedical research. The Rockefeller Foundation has moved almost entirely away from providing support for domestic medical education and the other Bigs, if involved



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at all in the field, have concentrated on such things as curriculum reform, a variety of so-called innovative projects and, more recently, outreach activities.

And now we have come full cycle; the federal government itself is pulling back.

A Reversal of Foundation Policies?

What chance is there that the foundations will return to the fold? The answer has to be guarded, partly because the medical schools today are spending as much each year as the private foundations, give or take a few hundred million.* And there is no chance whatever that the foundations will suddenly decide, *en masse*, to give all, or even a large percentage, of their incomes to the medical schools. The fact is that, of the 33 Bigs, the Commonwealth Fund is the only foundation that has, since World War II, devoted itself almost entirely to the support of health education in one way or another. But as a group, the big foundations are in neither mood nor position to move massively and passively to fill in all the gaps and voids left by federal withdrawal.

Yet there are some possibilities which, to now, have not been fully explored. It can be plausibly argued that it was the foundations that built American medical education and schools of public health; and now that new and pressing needs have arisen, they might logically be expected to return. They may indeed do so but if they do, it will (in my view) be for very specific purposes. And those purposes will not necessarily be those that have been favored in the past by federal planners.

Medical School Interfaces

Some idea of the purposes, where medical education is concerned, can be gained by considering that the American medical school has two broad interfaces: one is the interface between its basic science departments and the science activities residing within the parent university; the other is between the medical school and the community of which it and its parent university are both parts.

As for the latter, almost every medical school in the country now has a department of community medicine — something Flexner never dreamed of — and many are involved with

extra-university bodies in designing and experimenting with various health care delivery schemes. The Commonwealth Fund has supported a number of such experiments and the Robert Wood Johnson Foundation is now doing so on a much larger scale. But, in my opinion, this type of foundation activity is not likely to grow much larger and even may begin to diminish. It's a question of how many experiments is enough? The question is especially pertinent when one considers that few, if any, of these experiments are likely to result in the implementation of a delivery system on a broad front until some sort of national policy on health care financing and distribution of facilities is accepted by government. At some point, which may or may not have been reached already, further experimentation becomes pointless and wasteful. In any event, the foundations themselves do not have enough money to initiate and support any form of national health care delivery system. What has been done experimentally to date needs now to come under careful evaluation; and future foundation support might logically be directed primarily at supplying whatever experimental links may prove to be missing. Then it is up to government and the electorate to make up their minds how to phase into the system or systems that are most acceptable.

But what about the other interface: that between the basic science departments and university science activities? Inherent problems with this interface have been occasionally recognized almost since the interface was created. It developed in large measure from the Flexner Report of 1910 and Flexner himself got it from the German university prototype. But he had second thoughts about it. It was, in fact, one of the things he had in mind when, 15 years after his report appeared, he wrote:¹

Our present fetters were . . . forged in order to compel wretched medical schools to give unfit medical students a better training. Now that the end has been measurably accomplished, the means have become a fetish, blocking further improvement.

* The medical schools reported total expenditures of \$1.55 billion in 1969-170. In the same year those foundations with assets of \$500,000 or more (about 5400) spent just over \$1.5 billion.

One might well consider this statement Flexner's addendum to his own report. His words, *fetters, fetish, block further progress* are anything but weak; and he makes it clear that his original intent was to initiate an evolutionary process and to give American medical education an effective, but not an immutable, form. That form, in turn, must, on the one hand, provide quality training in basic sciences, and on the other, be designed to serve the health care system into which it was to feed its products. But Flexner's expectation that the process would be dynamically evolutionary, and would undergo further improvement after it was launched was unmistakable, and until recently, largely ignored.

Today, the interface between basic science departments and their intellectual analogues with the university shows little more than token evidence of becoming any less rigid than it had become when Flexner wrote his addendum in 1925. Yet the possibility that the basic medical sciences, in some university medical schools at least, have cut themselves off from very vital currents of thought and intellectual activity is not precisely a new idea. Part of the reluctance to take the possibility more seriously undoubtedly stems from the natural fear shown by any autonomous body when what it takes to be a threat to that autonomy appears on the horizon. And the fear then is expressed as pious doubt about possible degradation of quality, something that allegedly can be protected only by preserving the *status quo*. Under such circumstances it has been impossible to examine critically the assumption that the Flexner curriculum and departmental structure produce scientifically competent men of medicine and, thus, optimal results in the training of physicians. But that assumption is today under increasingly critical scrutiny.

This interface may well become a focus of interest for the founda-

tions, several of them at least; and, hopefully, they may act in concert. The results could be highly constructive, provided the intent from the start is to upgrade science offerings and learning exposures throughout the university, without specific (and often limiting) regard for students heading for medicine. The form and sequence of such an endeavor would have to be carefully worked out and there are, of course, numerous difficulties. The end result might not cost much less than our present arrangement and, while it is quite possible that it might result in a shortening of the time spent, after graduating from high school, to acquire the MD degree, time-saving (and to some extent cost) should be secondary to improvement of quality and effectiveness.

A parallel and overlapping problem in which the foundations might do well to become interested is that having to do with the overall *form* of American medical education. The Flexnerian form, rigid though it was, served its system very well for a time. But the system itself is now in the process of change and there is the possibility that American medical education will move, by a sort of entropic process, to formlessness, driven along to that end stage by a sort of academic Gresham's Law.

In this connection, much has been written since Mr. Nixon went to Peking, about the achievements in medical education of the People's Republic. Several years ago, Mao Tse Tung condemned Chinese universities as elitist and ordered them to provide a two-year course in medicine for students recruited from the masses. But it has not worked out very well. The two medical schools in Shanghai, for example, have recently reintroduced a longer course, with emphasis, once again, on the basic sciences but retaining clinical training in communes, factories, and other units outside the university. The *New York Times* explained the genesis of the Maoist policy, which is now being modified, in these vivid but enigmatic words (and I quote verbatim):⁵

The move to broaden the members of [medical] students and shorten [their] course was ordained by political pressure during the Cultural Revolution . . .

Since the *New York Times* is obviously infallible, I must assume that they said what they meant to say. But, I suppose, it is possible that the *Times* got its verbs switched somehow. It may even be that the Chinese, in their inscrutable oriental wisdom, were combining efforts to reform medical education with the development of new techniques to produce zero population growth along very subtle new lines. But whatever it was that the Chinese hoped to achieve by such an extraordinary academic maneuver, they do not appear to have succeeded in turning out what they considered to be professionally competent physicians.

We may well, in the United States, profit by their example. The form of medical education undoubtedly needs to evolve, just as Flexner hoped it would. And I hold it to be a very proper, and even a traditional, rôle of the foundations to help the process along until we reach a new form, serving a new system effectively, improving quality of training, and avoiding the near-absolute rigidity of the old form.

It is not too much to say that the future of the nation rides in important measure on the quality and effectiveness of its professional training in medicine, in law, and in certain other fields. The foundations cannot build and operate new systems for professional training. But they are uniquely equipped, working with academic colleagues and other elements in American society, to alter the directions of professional training when they need altering.

It is my belief or, more accurately, my hope, that this is what they *will* do. But to do it properly, changes in patterns of foundation operation will be essential. For one thing, grants will have to be large and for an adequate period of time.

They cannot be blanket grants, but should go to carefully selected universities that are willing and able to develop and implement desirable goals. And those grants will, unlike present practice, have to be accompanied by very clear guidelines. Selection of institutions, and monitoring of progress, should be in the hands of a modified peer-group mechanism working with foundation staffs, and not solely in the hands of those staffs themselves. And it is almost redundant to say that some basis for withdrawal, if the job is not getting done, ought to be worked out and accepted by all parties from the start.

Whether the foundations and universities can cooperate in this way, or whether the foundations can cooperate among themselves to this extent, is uncertain. But this, to my mind, is the foundations' opportunity and I consider it to be as brilliant and as promising as the opportunity they seized in the years that followed the Flexner Report. And if it is done conscientiously and well, Flexner's dream of making every physician, whether family, primary, or specialist, appropriately competent in the basic medical sciences, the behavioral sciences, and in problem-solving may yet be realized.

If it is not, the entropy now proceeding will operate to completion and our successors in medical education, at some future date, will have to start massive reform all over again.

Bibliography

1. Lewis, Marianna O.; and Bowers, Patricia (editors): *The Foundation Directory*. Fourth edition. New York, Columbia University Press, 1971.
2. Chambers, M. M.: *Charters of Philanthropics*. A study of selected trust instruments, charters, by-laws, and court decisions. New York, The Carnegie Foundation, 1948.
3. Fosdick, Raymond B.: *The Story of the Rockefeller Foundation*. New York, Harper & Brothers, 1952.
4. Flexner, Abraham: *Medical Education: A Comparative Study*. New York, The Macmillan Company, 1925.
5. Training of M.D.'s faulted by Chinese. *New York Times*, Section 1, p. 13. 6 May 1973.

Medical Education: A View from Several Levels

Part of the morning program for Alumni Day included a panel discussion entitled, "Medical Education: A View from Several Levels." Participants were James H. Doroshow '73, Norton M. Hadler '68, Donald E. Love '48, and John H. Ohler '48. Dr. Ohler was unable to attend, but sent a letter expressing his views. Following is that letter and excerpts of the remarks of the other panelists.

Dr. Ohler: Obviously, all medical students are not destined to be deliverers of primary medical care, but I feel strongly that the percentage of students who reach this goal is distressingly low and has led to an intolerable situation in the practice of medicine. There are so few doctors per number of patients that each patient suffers from a lack of attention. The result is that as a doctor develops his practice, he is forced to adopt an unrealistically heavy schedule of appointments. This, in turn, leads to other distressing developments: first, he has no free time; and second, the long hours of work generate an unrealistically large income. This results in an equally large overhead, both in business and recreation, and produces a situation in which the doctor is obliged to keep running at a steady, rapid clip on the treadmill in order to stay afloat professionally and financially.

If doctors were better prepared in medical school for the economics of practice, they might do better at it. But I suppose that not many students would be interested in this subject in medical school.

In my opinion, the only solution in which the Harvard Medical School can participate is to provide practice-oriented clinical teachers at the house staff level and in the

last two clinical years of the student's training. During my years at HMS, many Harvard professors had very little contact with patients except on rounds.

About 10 years ago, I wrote to one such professor and asked him to send me any resident he knew who was interested in practicing medicine in the country. (Dr. Ohler practices in New London, New Hampshire). I received a three-line, terse note indicating that, as a group, Harvard medical house officers were not interested in practicing in New Hampshire, particularly in such a rural area. Many other erudite professors have professed wistful envy at our good fortune in being out in the front line of medicine and enjoying the good life of the country, but they have no more intention of seeing a patient on a Saturday afternoon than the above mentioned correspondent.

I do not believe that the Medical School can undertake to train different kinds of physicians. Each doctor must decide which road he is to travel and he will make that decision when he is good and ready. It is a matter of setting the tone. There has always been an accepted statement that Tufts Medical School trains practicing physicians while Harvard Medical School trains research artists. Is this, I wonder, indeed a truism? Perhaps the most important question of all for the people who want to go into research is: Can we afford to overpopulate the research field on the assumption that by sheer weight of numbers, we will eventually solve some of the distressing problems still facing us?

It must be obvious that I have strong feelings about these issues. I think that Harvard does tend to train researchers; that there are

too few practicing physicians; that Medicare, government financing of medicine through and with the help of private carriers is a success, is here to stay, and is going to be expanded; and that the vast silent majority of patients in the middle years, with less than large incomes, are definitely being shortchanged. The teacher with three children finds it almost impossible to pay his medical bills, and as a result he goes from crisis to crisis, with little emphasis on preventive care. Perhaps an answer would be to have an insurance scheme that pays 100 percent of charges for preventive care and 60 to 80 percent for crisis care.

I would like to get a message to the bright young people now finishing house officerships and debating where to go into practice. The message is simply that good medicine has arrived in the country and has arrived because it has been brought by the doctors who have come to the country. It is perfectly possible to have a medical practice with an academic orientation as well as a service orientation with one proviso: there must be some time away from patients, in the library, going to meetings, or thinking. When I was a third year student, I remember a lecturer at the MGH telling us quite seriously that every medical student and doctor should spend at least five minutes a day thinking. We all thought it a great joke at the time, but now there are days when I weep for those five minutes that I cannot have. I confess to a feeling of despair, generated entirely by fatigue and the realization that I cannot possibly finish my chores today or any day as long as I continue to see the same number of patients.

The medical profession owes it to the people of this planet to see to it that enough doctors get out and give primary care. I do not believe that the medical profession is fulfilling this obligation; I further feel that there are very few among us who are equipped to do original research in any field. There are too many perennial students who simply are afraid to cut the cord

and get out and take care of people. As you look at the advertisements for doctors in medical journals, they practically promise the moon to persuade them to come and join a perfectly satisfactory medical or surgical group with all the best facilities. This is totally ridiculous. If the people coming to medical school are not interested in getting out and working a reasonably full week taking care of people and earning a good living doing it, then there is something funny somewhere and I believe it starts with the admission policies of the Medical School and is probably aided and abetted throughout the years of medical education.

Dr. Love: I read statistics in the *Alumni Bulletin* several years ago that on entry into the Medical School, something like 96 percent of the first year students express the noble goal of entering the practice of medicine. By the time they reach their senior year, this falls to 11 percent. I think this attrition is basically a function of our education. In my own experience, it was the interpersonal relationships with men at HMS, not subject matter, that made the difference. If you do not have practicing clinicians in the teaching group, students will never be interested in becoming practitioners.

Dr. Doroshov: I could not agree more strongly. One of the biggest disappointments of my four years at HMS was my inability to find a faculty member who made a profound difference on my education — a superb clinician upon whom I would like to model myself. I do not know if it was just the particular sequence of courses or relationships that I had or whether those people are so rare that it is only the lucky student who happens to come in contact with them. I happen to believe quite strongly that it is the latter, because I know some of those people do exist; it gets around quite rapidly who it is that you want to go overboard to come into contact with. But there are very few of these faculty members around; I certainly wish there were many more.

Dr. Hadler: I was part of the 96 percent who did not opt to go into practice initially. Dr. Ohler raises some serious issues and the problem of finding the ego ideal is an important one. It was my own experience that the preclinical education at HMS was quite disillusioning. It is the most passive experience one can ever imagine and it grew from the concept that the Medical School was trying to expose us to human biology globally and in depth and what that involved was sitting still while it was trotted before us. For me, medical school took on meaning as a medical clerk on the Harvard service at the Boston City Hospital. That was the first truly exciting and active educational aspect of my time at HMS. It was where I began to find my heroes. It was in that particularly excellent environment that I found people I wanted to emulate, and I found a quest for excellence that I thought was more than enviable. It began at the City and has been my experience at the Mass. General. I do not think we need to mention individuals, and I do not think that individuals, in and of themselves, make that environment. I think what Harvard has created for its students is the possibility of exposure to people at many levels, who have made the decision to spend their life in a particular way, be it at the bench or whatever. I personally found Harvard's three-legged stool to be what I wanted to emulate — the teacher, investigator, clinician. The person who was good at everything and painted the Sistine Chapel on weekends! I am not sure this type is here but there are many people who are trying to do just that and I think it is an admirable way to spend one's life.

Dr. Love: Probably the biggest asset I personally received from HMS was more a series of attitudes than a source of knowledge. What Harvard stresses is the need to develop intellectual honesty, an on-going interest in things unknown, and finally, a continuing need to periodically become introspective about the biases and the bases on which we make our daily decisions.

The Harvard Medical School Class of 1923 had its 50th reunion on Friday, June 1. A very good turnout of the membership met at the Medical School for the morning program which was most informative in regard to the present curriculum and the philosophy behind the relations of students and the faculty. We noted the changes and the problems of today and received much food for thought about the future of medical education.

After the formal discussion the class photograph was taken and the usually excellent buffet luncheon was enjoyed by all. The afternoon was free and in the evening we met at the Aesculapian Room of the Harvard Club for our banquet. Twenty-seven members and 20 wives attended, and our honorary member, Dorothy Murphy, our indispensable and loyal help in time of need, also joined us. We were sorry that Jim White, our president and chairman, could not be with us because of a bad cold which kept him indoors for our whole program. Dean Ebert, who was to have joined us, regretted that he was unable to attend because of other commitments. Dr. David G. Freiman, Mallinckrodt Professor of Pathology, pathologist at the Beth Israel Hospital, and chairman of the Curriculum Committee was our guest speaker at the dinner. He explained in some detail the thoughts and guidelines of the committee and again we were brought up to date on the present day affairs and the attendant problems which challenge this committee.

On Saturday, we all went to Castle Hill in Ipswich to enjoy the magnificent view of the Castle Neck beach and the panorama of the sea from the coast of Maine to Halibut Point on Cape Ann. The day was sunny, the air crisp and clear, and the time was spent in relaxing and enjoying the sights and consuming the clams, lobsters, and other comestibles provided. The management of the "Great House," formerly the home of the R. T. Crane, Jr. family, gave the members a chance

to see a truly beautiful Georgian mansion with the Hogarth, Grinling Gibbons decor of what is now a bygone era. We hope that some day we can repeat, in part at least, this occasion, our last formal reunion.

Robert L. Goodale

1928

Twenty-six classmates and 16 wives attended the 45th reunion dinner at the Harvard Club on Friday night. It was an informal and spontaneous occasion and during cocktails each member reported briefly on his current activities. Many more were still in professional activities than were those who retired but remained active in their hobbies.

On Saturday, a smaller number assembled at Chatham Bars Inn for lunch, with the resolution that in 1978 there would be a 50th reunion with many on hand who had not previously attended.

John H. Talbott

1933

Forty-four members and 33 wives gathered on June 1 to celebrate our 40th reunion. Preliminary greetings exchanged prior to the formal alumni program were followed by firm renewal of old friendships in our class and from other classes at the leisurely luncheon in the Quadrangle. There was much discussion about the past and future of the rendering of medical care, a topic of major concern manifested by classmates in the Reunion Report. Will today's graduates find as much enjoyment in their professional lives as we have found? One wonders.

The Friday evening gathering at the Sonesta was festive. Informal remarks by the always refreshing Bart Quigley were followed by equally delightful comments and reminiscences by President-Elect Bert Dunphy. Past-President Bill Pitts compared our years at HMS with today's student experience. Joe Lichty (jack-of-all-trades), surgeon, dean, hospital administrator, and now executive health benefits consultant, spoke about the insidious proliferation of residency programs in United States hospitals. We were reminded by Dunphy of the important SROSS study sponsored jointly by the American College of Surgeons and the American Surgical Association, the purpose of which is to determine more accurately the surgical needs in the United States. On the lighter side, we learned that our classmate, Bill Hill, had won the Massachusetts Medical Society's golf tournament a week earlier for a second time. The first was about 25 years ago. In his recent triumph, he is the oldest member of the Society ever to win this prize.

On Saturday, a second beautiful day, we traveled to Marblehead where we were graciously received by Clarke Staples and his wife Dorothy. In their charming setting overlooking Salem Harbor we continued visits with our colleagues, sailed in Marblehead Harbor, and had a superb clambake. "Ex-Dean" Dorothy Murphy joined us for the festivities.

There was a general consensus that a reunion is a great treat and we look ahead to the next gathering in 1978.

Bradford Cannon

1938

The 35th reunion, enhanced by perfect weather and superb activities, was a great success. We began

Reunions



1923

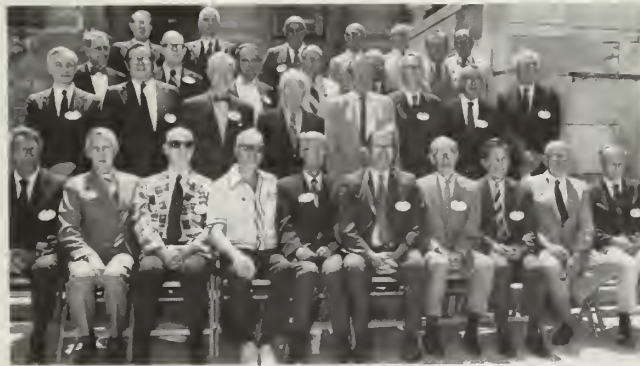
1928



1933



1938



1943A



with 59 members of the Class of 1938 gathering Thursday night for cocktails and dinner at the Harvard Club. The evening was enlivened by our six guests: Dr. and Mrs. Arthur T. Hertig '30, Mr. Henry C. Meadow, Langdon Parsons '27, and Dr. and Mrs. John Rock '18.

Following the Alumni Day program and luncheon on the Quadrangle, 48 of us headed for the Cape and a weekend at the Wychmere Harbor Club where we ate, drank, made merry, and indulged in such athletic activities as tennis, swimming, golf, and boating. The Brewsters and the Meads win the distance prize having come all the way from California. All in all, it was a reunion to remember.

David E. Kopans

George Hale certainly wins first prize as the classmate who traveled farthest to be with the class. We hope he will return from Anchorage, Alaska to all reunions for he is an excellent example of the way we should look.

The class of '43A was deeply touched to have Mary Naquin with us throughout the reunion and because of her warmth and courage we were able to convey our sorrow to her in the great loss of Howie's recent passing.

Finally, we are most appreciative to Perry Culver '41 and the alumni office whose great care and interest made the arrangements for this unforgettable reunion.

Donald E. McLean

in the face of a blustering southerly took off by ferry to Nantucket, arriving there at dusk and on to The White Elephant Inn for a glorious two days of sun and fun. Some toured the island by bicycle, some played tennis, some explored the old parts of Nantucket, some bought scrimshaw, some sat by the pool and drank; but everyone enjoyed what he or she did.

At dinner on Saturday, Joe Holihan '43A, suggested that it was time that '43A and '43B separate. His remarks were greeted by booing and once again, the ties that bind the two classes seem unsevered. There were a lot of classmates happy about Nantucket and The White Elephant. Maybe 1978?

John R. Brooks

1943A

The 30th reunion of the inseparable '43A and '43B classes was such a resounding success that it shall remain a memorable event for all who were fortunate to participate. The weather was superb throughout the entire four days. The camaraderie was nostalgic of the esprit de corps of our HMS days that made these classes outstanding. The locations were perfect and the food was excellent.

Dorothy and John Brooks were gracious hosts for the initial event of a clam and lobster bake at their home in Weston. Dorothy Murphy honored us as our special guest at this delightful gathering.

After alumni day activities we proceeded to Hyannis where we boarded a special HMS ferry to Nantucket and The White Elephant. (This establishment receives a triple A rating in all respects and we recommend it as outstanding for any future reunions).

The 101 of us and our wives spent two beautiful, active days on this delightful island and returned exhausted with happy memories of a truly wonderful experience.

1943B

It was a glorious 30th reunion and its success bodes well for the reunions of the future. Those two illustrious classes of '43A and '43B, now joined in holy wedlock, reunited in perfect harmony. Dedication to Harvard Medical School and to the concept of reunion was clearly exhibited by those who came from the west coast and points in-between: Edwin Alston and Robert Weber from California; Jack Cannon from Arizona; Richard Eckhardt from Iowa; and Jack Taylor from Ohio was his inimitable self.

Things started off at a clambake at Dot and John Brooks'. '43B challenged '43A to a softball game but there were no serious takers, the Class of '43A involving itself more in taking drinks, so we just played informally. Hathorn Brown had his walkie-talkie so that direct communication between the pitching mound and the bar could be maintained at all times. The evening was clear, spirits high, the tent a pretty sight, and the clambake a huge success.

On Friday, after the alumni day program, we drove to Hyannis and

1948

The Class of 1948 met at the Wychmere Harbor Club in Harwichport for the weekend. First, however, being of the twenty-fifth year class, several classmates participated in the Alumni Day program Friday morning. We listened with varying reactions depending on political predisposition to Paul O'Rourke's description of his career, which has led him from a suburban practice through care of migrant workers to a position as assistant to California legislators. John Ohler's letter read by Howard Hiatt and commented upon by Don Love and others left us ready for active discussion at the Cape where we were blessed with beautiful weather. We played tennis and walked on the beach. For this reporter the occasion ended ideally with a seven hour sail from Provincetown to Winthrop aboard John Ohler's Nova Scotia built schooner.

All this would not have been complete without some of Roger Wilcox's hijinx, who when asked why he amputated Ed Evart's collar reported, "It seemed like the right thing to do at the time."

Robert K. Funkhouser



1943B

1948



1953



1958



1963



1968



The Reunion Committee decided that in view of the exciting city Boston has become today, the members of the class returning from out of town would be pleased to have the opportunity to explore the "New Boston." Thus, our activities were largely centered in the area and allowed for the various members to seek out those sites with particular attraction to them. Comments were overheard indicating that the rather dramatic new Boston skyline, the tremendous changes that have taken place around Copley Square, the Prudential Center, all were of great interest. Many found time to window shop or browse along Newbury Street or in Cambridge.

The Hospitality Room in the Hotel Sonesta on Thursday evening drew a fair sampling of local class members and a few hardy souls from out of town managed to present themselves to the registration desk before 6 p.m. The Dolans and Zangwills were among the early arrivals. Julian Kitay also joined the group but unfortunately had to depart the next day before the rest of the festivities occurred.

On Friday, Alumni Day was blessed with gorgeous weather and the usual lunch, beer drinking, conversation and class picture taking session followed the morning program. Friday night all assembled for a lovely cocktail hour and dinner at the top of one of the new elements in Boston's skyline overlooking the harbor. After the excellent meal, entertainment was provided by George Ryan and the East Bay City Jazz Band. Some, not yet suffering from senile joint degeneration, danced, while others talked.

Saturday afforded another of the brilliant New England days and a delightful drive through many of the small towns on the South Shore to reach the Cliff Hotel in Scituate. There, with the rockbound coast of New England before us and all of the facilities to enjoy, a most pleasant afternoon was spent with the usual beverages, followed by a clambake of no small proportion.

Most everyone seemed to agree that as with good wine, the Class of '53 had improved with age. The tremendous intensity of 20 years before had been replaced with a great deal of acceptance of the realities of life as well as our varied positions within that reality. This made for a relaxed and convivial gathering of old and new friends.

I do hope that those who were unable to attend this year will make plans now to attend the 25th in 1978.

George M. Ryan, Jr.

1958

Members of the Class of '58 converged by all means of transportation on The Harborside Inn in Edgartown for two-and-a-half days of beautiful sunny weather and the renewal of old friendships. The Thursday night dinner at the State Street Roof gave us an opportunity to catch up on the varied and interesting careers of all. On Alumni Day, I was impressed with the general concern about medical education at HMS and the consensus that the School should maintain its academic-research orientation and avoid becoming overwhelmed in attempts to deliver service.

But most of the weekend was light-hearted — bicycling, tennis, dining and dancing, renewing old acquaintances and making new friends. All who attended agreed it was a great reunion.

Pattison Esmiol

1963

As the last class to finish college in the 1950's, we have retained our dedication to apathy. Our reunion chairman — Harvey Med Veritas — was unable to attend since he was in the middle of a 20-year nap. However, about 40 of our classmates appeared at one or more of the festivities, somewhat sheepish at being so easily aroused to action.

Friday night was spent at the Penthouse of Holyoke Center. The high point of the evening was a whistling quartet by Brubaker and Bikel. The low point — the disappearance of the bar and its tender — was followed by the spirited work of Evans (F), O'Connor, and Swenson. They ventured into the evening and returned with Gilby, Cutty Sark, and Penelope. John, incidently, now resides in the North End and is thinking of changing his name to O'Rocco.

Saturday saw us amid the sun, sand, surf, and suds in Scituate. By daylight we were better able to appraise the ravages of 10 years. Happily, we were pleased by what we saw. Our mean hair length has increased — thanks largely to Beck, Keutman, Klein (D) and Riordan but other dimensions appear to have diminished. Our candles are still brightly burning and no one appears to be in trouble.

Richard Monson

1968

The setting for our reunion was Dr. and Mrs. Perry Culver's lovely home amidst rolling countryside in Lincoln. Bright sunshine prevailed and softball provided thirsts readily quenched with beer. Many brought their children which added to the fellowship. While most who attended reside in the Boston area, the event also had national appeal with Jim Halloran coming from San Francisco. A delicious lobster and clam-bake was enjoyed by all. I left with a truly warm feeling and look forward to seeing even more of our classmates at our 10th.

William W. Southmayd

THE WILLIAM O. MOSELEY, JR. TRAVELLING FELLOWSHIPS

THE BEQUEST OF JULIA M. MOSELEY MAKES AVAILABLE FELLOWSHIP FUNDS FOR GRADUATES
OF THE HARVARD MEDICAL SCHOOL FOR POSTDOCTORAL STUDY IN EUROPE.

The Committee on Fellowships in the Medical School has voted that the amounts awarded for stipend and travelling expenses will be determined by the specific needs of the individual.

In considering candidates for the Moseley Travelling Fellowships, the Committee will give preference to those Harvard Medical School graduates who have—

1. **Already demonstrated their ability to make original contributions to knowledge.**
2. **Planned a program of study which in the Committee's opinion will contribute significantly to their development as teachers and scholars.**
3. **Clearly plan to devote themselves to careers in academic medicine and the medical sciences.**

Individuals who have already attained Faculty rank at Harvard or elsewhere will not ordinarily be considered eligible for these awards.

There is no specific due date for the receipt of applications or for the beginning date of Awards except that the Committee requests that applications not be submitted more than 18 months in advance of the requested beginning date. The Committee will meet once a year in January to review all applications on file. Applicants will be notified of the decision of the Committee by January 31. The Committee may request candidates to present themselves for personal interviews.

Application forms may be obtained from, and completed applications should be returned to:

SECRETARY, COMMITTEE ON FELLOWSHIPS IN THE MEDICAL SCHOOL
HARVARD MEDICAL SCHOOL
25 SHATTUCK STREET, BOSTON, MASSACHUSETTS 02115

Class Day

Six Receive AMWA Awards

The first American Medical Women's Association Scholarship Awards were given to six women in the Class of 1973 at graduation exercises held on the Quadrangle on June 2. The awards, given to women students nominated by their deans for being in the top ten percent of their class, or those regarded as honor students in schools with ungraded systems, were presented to: Kathleen H. Cook; Lucy E. Hann; Jane G. Green; Janine Krivokapich; Ann M. Mass-Schwartz; Orah S. Platt; and Melinda K. G. Zitin.

Orah S. Platt also received the Massachusetts Medical Society Award which is presented annually to "the medical student who seemed most notably to have developed the intangible qualities of The Good Physician."

Other prizes and awards announced by Dean of Students, Frederick C. Lane, went to the following members of the Class of 1973. The Richard C. Cabot Prize "for scholarly contribution to the history of medicine" was awarded to James H. Doroshov for his work entitled, "The Side Chain Theory of Immunity." Michael Rosenblatt received the Henry Asbury Christian Award "for diligence and notable scholarship" for his paper on "Membrane Bound Receptor Binding Assay for Parathyroid Hormone Based on a Hormonal Analogue."

The Leon Resnick Memorial Prize "for excellence and accomplishment in research" was awarded to Edward J. Benz, Jr. for his work, "The Molecular Basis of the Thalassemia Syndromes: Role of globin messenger ribonucleic acid." Donn G. Mosser, Jr. received the Rose Seegal Prize "for scholarly contribution in the area of social and community medicine" for his paper, "The First American Campaign for Compulsory Health Insurance, 1911-20." The James Tolbert Shipley Prize "for research, the results of which have been published or accepted for publication" went to Christian R. H. Raetz for his work on "The Function of Cytidine Diphosphate-Diglyceride and Deoxycytidine Diphosphate-Diglyceride in the Biogenesis of Membrane Lipids in *Escherichia coli*" published in the February 1973 *Journal of Biological Chemistry*.

John H. Talbott '28, past president of the Harvard Medical Alumni Association presented the Association's award to Howard L. Freedman in recognition of his all-round ability and well-balanced personality.

Paul Goldhaber, Dean of the Harvard School of Dental Medicine, presented awards and prizes to six members of the HSDM Class of 1973. Edwin J. Riley III received the Harvard Dental Alumni Association's Gold Medal for "all-round excellence and also the Dr. Norman B. Nesbett Award for "excellence in the field of dentistry." For the first time, the Silver Medal of the Harvard Dental Alumni Association was awarded to a woman, Claudia A. Draizin. The Grace Milliken Award for "the outstanding paper in the field of dental health" went to John J. Dann, III, and Eli C. Schneider received awards from the American Society of Orthodontics and the American Society of Dentistry for Children. The Harvard Odontological Society Award went to Carleton C. Cappuccino and the American Association of Endodontics award went to Gene N. Barry.

The Class of '73 recites the Oath of Hippocrates.



Valediction

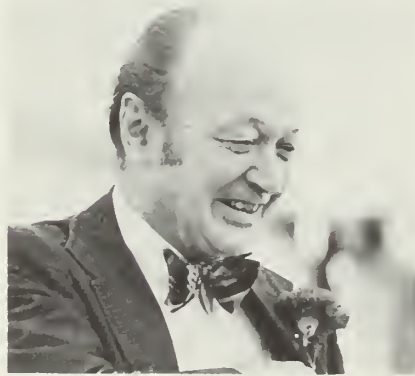
by Robert H. Ebert

It is the Dean's privilege to give the Valediction to the graduating class, and in preparation for what I am about to say, I reviewed the remarks I had made over the past five to six years. Frankly, I was favorably impressed. I had always been brief, I had not been too parochial, and I had walked the fine line between sentiment and sentimentality. Indeed, I was sorely tempted to plagiarize myself. But I soon discarded that notion, for I felt that this was too good an opportunity to lose. Even a dean does not have a great many opportunities to say what he thinks without fear of immediate rebuttal.

There is something I have wanted to say publicly for quite a long time, and I would submit that since you are about to become alumni, and are likely to give your alma mater more advice than money, you are an appropriate audience. I want to talk about goals — and specifically the goals of the Harvard Medical School. It is popular these days to define or redefine goals, both short-range and long-range, and hardly a week goes by without a visit from someone to announce that (a) HMS has no defined goals, (b) has the wrong goals, and (c) he can define the correct goals. Often there is the quality of revelation about these remarks, and the clear implication is that once I, as Dean, know what the goals should be, I will immediately implement them. Since I receive such conflicting advice about what the present goals are and what they should be, I will not pause to remark on the difficulty of implementing any change in this large and decentralized institution. Instead, let me summarize what I am told.

Harvard Medical School is interested only in the education of medical scientists and should now turn away from this goal and concen-

trate its resources on the education of socially concerned community physicians. That is a pretty clear message — but what do I hear next? Harvard has abandoned its role as the training ground for medical scientists and is interested exclusively in community medicine. Then I am told that Harvard is too concerned with producing teachers of medicine and not enough in educating practicing physicians. Following which I hear that the great majority of HMS graduates are in the practice of medicine in all of the specialties and isn't it time to produce more teachers.



Dr. Ebert

It is said that the Admissions Committee is indiscriminate in its selection of students and instead should take students with quite specific aspirations. Needless to say, each critic has a rather different view of what the applicant's background and aspirations should be. The Medical School has been accused of too little concern for service to patients and too much; too great a commitment to minority students and not enough; too great an allocation of resources to the basic medical sciences, and far too little; too rigid a curriculum and one that is far too flexible. The litany could go on but I think I have illustrated — or possibly caricatured — the

problem. As I listen to the point-counterpoint of argument, I cannot help but ask the question: Is it possible to have a philosophy of education that encompasses all of these views? Curiously enough, I believe it is.

A university without controversy is a dying institution. The absence of criticism does not mean that a medical school has solved all its problems or has arrived at the perfect curriculum, but rather that it is either apathetic or will not tolerate open controversy. If there were no disagreement among students, faculty, administration, and alumni, there would be no impetus for change of any kind, and that would signify institutional senescence. But there must be something besides criticism and controversy if there is to be real change. There must also be mutual trust even when there is disagreement, and there must be a willingness to listen to the other side and to compromise.

Let me now return to the matter of goals. Any one of us could draw up a list of perfectly respectable goals for this medical school or any other. Goals in the abstract have very little usefulness unless they can be implemented. It is the process of implementation which tests the vitality and dedication of a university community. For many years, it was stated that HMS did not discriminate against members of minority groups. It did not discriminate — neither did it take very many minority students — which was a comfortable solution for the School. Then it was decided to actively implement that goal, and out of that process came controversy, some discomfort, and progress; progress which will continue.

Whatever else you may have gained from your years at HMS, I believe you have sharpened your critical faculties and that you have learned to live with controversy. Use these abilities in a constructive manner in whatever environment you choose, and you cannot help but contribute to the improvement of the human condition. And that, after all, is why you are physicians.

Archimedes Revisited

by Senator Edward M. Kennedy

The Harvard Medical School has a long tradition as a pioneer in educating young physicians in the horizons of medicine and in the complex and subtle skills of the care of patients as human beings.

As Frances Weld Peabody, a distinguished clinician and member of the Harvard Medical School Faculty early in this century, said: "One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring *for* the patient."

Today, however, "interest in humanity" means something vastly different from the *laissez-faire* and doctor-on-horseback relationships that physicians established with their patients at the turn of the century and in more recent days gone by in American medicine.

It is no longer sufficient now for a physician to be highly skilled in the art and science of medicine, to deal with the problems of his patients as individuals or even to practice his profession by simply awaiting the patients' arrival at his door.

The modern physician's responsibility extends far beyond his concern for the patients in his care. It also extends to his neighbor, his community, his city and his country. Above all, it extends to finding effective ways to deliver the blessings of his magnificent science to all his fellow citizens. In a word, your professional relationship is no longer just a private affair — you have a public role and responsibility as well.

"Keep the government out of this picture," the AMA advertisements used to say, showing the physician at the patient's bedside. But none of you would be in that picture now, none of you would be here today, if government had followed that advice.

Even here, at Harvard Medical School, one of the schools most heavily endowed with private funds in the country, public dollars account for over half the operating budget. And so, when you nail that sheepskin to the wall, don't forget that it reads "Paid in part by the American taxpayer and by the two hundred million citizens of this country who await your service."

My own experience has been that very few physicians or any other citizens are aware of the vast amounts of public funds that federal, state and local governments pay out every year for health. Washington, for example, is spending more than 30 billion dollars in the current year alone, and Massachusetts and our other states are spending many billions more.

Senator Kennedy



Public funds of this size are not expended out of any sense of charity toward the medical profession. Instead, they are an absolutely vital investment in the future of America and in the well-being of all the people of our Nation. I assure you that the American people not only expect, but have every right to expect, full value for their dollar.

As Chairman of the Senate Health Subcommittee, I have been to many different parts of the country in recent years, and I have seen the enormous disparity between the best and worst that American medicine has to offer.

The best is so outstanding that it defies human imagination. Its story is told in the almost endless parade of Nobel Prizes won by American medicine and research. It is told along every corridor of magnificent medical centers like your own. Above all, it is told in the thankful prayers of millions of grateful patients who enjoy its benefits each day.

But the worst is an altogether different story, a story so appalling that it reads like something out of Charles Dickens or Victor Hugo, instead of America in 1973.

If we visit ghettos and rural areas where health services are non-existent, or are so utterly disorganized that they are unavailable when needed most, we hear stories of mothers unable to get any medical care at all for their sick children. We meet people with serious illnesses that might have been prevented by adequate early diagnosis and treatment. We see families totally cut off from health care because they have no funds or insurance to pay for it, and no transportation to even get there. We talk with the elderly and the chronically ill, for whom wrong and expensive services are often the only ones available, because we have failed to develop a balanced system capable of serving their basic needs for health.

The United States has progressed far beyond the point where health services can continue to be relegated to the law of the jungle and the survival of the fittest. Public planning and comprehensive health care and national health insurance can no longer be dirty words in the medical dictionary. Caveat emptor, the hunting cry of the carnival huckster and 2000 modern health insurance companies, can no longer be tolerated as an operating principle in American health or in obtaining protection from illness.

A few years ago, when health care was just a privilege and not a right, we might have tolerated a situation in which a very high quality of care was given to a very few people — people who were diligent enough to seek it, smart enough to find it, and rich enough to pay for it. As I say, we might have tolerated a situation like that, but we would have tolerated it in the same way that the country tolerated slavery in the early 19th century, as an evil whose days are numbered.

In the America of 1973 the time for tolerance of our health care crisis is over. We can no longer tolerate the injustice and abuses of our existing health care system. The system has to change, because high quality health care is no longer just a privilege for the few. It is a right for all, a right that can no longer be denied, a right that belongs to two hundred million American citizens.

During our Senate Health Subcommittee's hearings on the health care crisis, it became clear that citizens are not the only ones trapped in the existing health care system. The doctors and hospitals are trapped as well, and they are trapped as deeply as the consumers.

When a crisis arrives that affects so many people and cuts across so many professional, social, economic, and geographic lines, it is time for the government to act, and to act promptly and effectively.



My own view is that only the national government can bring equity and rationality and economy to the Nation's health care system. But I also believe that government can never achieve that goal without the advice and expertise and full cooperation of the medical profession. The worst mistake would be to cast ourselves in hostile adversary roles, because to do so would destroy our chances for change and progress in all the areas where reform is needed most.

There are three essential principles we should adopt if health care is to be made available to all Americans on a fair and equal basis. They are principles that each of us can share, and they form the basis for great national progress in the future.

First, the Nation must have a basic biomedical research program second to none. Public debate in recent years has focused on the organization and delivery of health care, and on the social responsibilities of medical centers and the medical profession to society. But at times the debate has seemed to suggest that because we need more of one, we need less of the other. The medical profession can and must accommodate both, and Congress must make it possible. The important thing is that the relationship between health research and health delivery must be symbiotic, not parasitic. Without basic biomedical research, the quality of all health care will deteriorate. I

pledge to work with you to strengthen our biomedical research capability in this country, and it is a struggle that none of us can afford to lose.

The shape and content of the biomedical research program must come from the research community. Congress cannot legislate a cure for cancer or any other breakthrough, but it can and should reflect the people's desire for breakthroughs in specific areas. Although the appropriation of public funds will inevitably reflect the priorities agreed upon between Congress and the Administration, the federal government should never restrict research to any narrow areas or pay for such research at the expense of promising but less popular or less publicized work in other fields.

Second, the federal government must free the Nation's academic health centers from serious financial worries and short term budget crises, so that medical education can turn its full energy to training physicians and developing needed health reforms. We need a continuing stable level of federal financial support for medical education. Never again do I want to see what I have seen in recent years — the spectacle of deans of outstanding medical schools pleading with Congress for emergency relief to keep their schools from closing.

If the federal government is serious about providing stable financial

support for academic health centers, it must also provide continued support for school construction and modernization. I have never been convinced that alternative funding mechanisms, such as guaranteed loan programs, can provide the basis for a sound construction policy, and I remain unconvinced.

Third and perhaps most significant, we must bring about a national system of health insurance, so that every American can obtain health care as a matter of right, regardless of who he is or his ability to pay. National health insurance is important in its own right, as a way of ending the massive inequities that now exist in the financing of health care, but it is also important in a larger sense, because only through national health insurance can we secure the leverage to achieve all the other reforms so clearly needed, especially in the organization and delivery of health care.

As Archimedes said, in ancient Greece, give me a lever and I will move the world. I say, give us the lever of national health insurance, and together we will move the world of health.

The challenge is clear, both to you in the medical profession and to those of us in public life with responsibilities for the development of the Nation's future policy. Just as the way we allocate our scarce health resources is changing, so the role of the physician and his obligations to society must also change.

Medicine, no less than any other institution in our society, is under great stress and challenge now. But if the challenge is great, it also measures the scope of the opportunity we now have. American medicine is still a beacon to millions living in sickness and ill health in our own country and throughout the world. The test is whether you have the courage and imagination to keep that beacon shining bright. I think you have, and I look forward to working with you and the colleagues of your great profession in building the dreams our people share.

HMS V or Flexible Flexner

by Gregory G. Gallico '73

I asked a friend what he had done with his extra year at HMS.

"I played pinball at Elsie's." he said. "I finally won, too!"

Most students make more reportable, if not significant, use of HMS V.

But what do I mean by HMS V? Every year a group of students spends an extra year beyond the routine four at Harvard Medical School and graduates with the following class. In the past, there have been about 12 students annually. This year there are 20 students who began HMS five years ago with me and are doctors only today. This increased number of students represents the beginning of a significant countertrend in medical education.

I say counter-trend because a move toward a longer education seems an ironic and perhaps a negative development in medical education. Today, when the need for new physicians is great and many medical schools are developing programs to produce doctors more quickly — three-year M.D. programs and six-year B.A.-M.D. programs — it may seem strange that all students are not encouraged or anxious to get into practice as soon as possible. Perhaps facetiously one might say it is a typical response of the always contrary student body. After all, only a few years ago the students were agitating for curricular reforms including earlier clinical responsibility and experience and the three-year M.D. option. However, the trend is consistent with these earlier attitudes and is a predictable and positive reaction of a diverse student body to these curricular innovations.





Dr. Gallico

One of the major stimuli to this trend has been the much-discussed Core Curriculum and its additional elective time. One student utilized the extra time during the early basic science block to study political science across the river; another, to learn Spanish for a medical trip to Cuba; and a third, to take courses at the Massachusetts College of Art. The decrease in required clinical courses allows large blocks of time to be devoted to expansion of personal interests sometimes only peripherally related to medicine. The freedom of the Core Curriculum sets a pattern for the student to carve out his own educational goals and methods. The Core is a stimulus to self-education.

In addition, the range of student interests in the past few years has spread to economics, sociology, and health care delivery, added to the traditional and still strong interest in basic science research. These new topics have led the student to other areas of the University; the Kennedy School, the Law School, and the Business School. Several students were even presumptuous enough to teach courses in the Yard in medical sociology and the politics and economics of medical care. Once confined to the Quadrangle and the hospitals, medical students are now more interested in utilizing the diverse facilities of the whole University. This wider interest, such as teaching undergraduates, simply requires more time to be combined with clinical excellence.

There are also more opportunities for structured programs to study specific diseases or medical care abroad or to add another degree to the M.D.

Also, the disappearance of the military draft and the shortened residency program give the student more flexibility in designing the number of years to spend in a particular sector of his education.

And what do the students do with their precious extra year?

As in the past, about five percent of every class still spends a year in full-time research. This has always been an ideal opportunity to extend college research or to initiate career laboratory interests. Usually, this year of special study has been taken between the second and third years, although with the new Core schedule there may be more variability in the future.

A new preoccupation of the HMS V'er is a second degree. There are now double degree programs combining the M.D. with a Masters in Public Health, Masters in Public Policy, or a Ph.D. These programs



were begun five years ago. A few students last year managed to earn both degrees in four years; all of the combined degree programs now require five years of study. The new multiple degree programs represent a significant change in Harvard Medical School's attitude from its previous belief that the M.D. degree alone was sufficient preparation for any career from research to administration. Seven students will receive two degrees in our class. Their response to the programs has been mixed. At worst, it's just some more letters; at best, these new programs lead to multiple careers without compromise in clinical experience.

A third area of student activity is travel and study in the medieval tradition of searching out the right place to learn the right subject. I spent a year of special study traveling around the world and working in Yugoslavia on TB prevention and control, in Uganda on endemic neoplasms, in Iran on echinococcal disease and geographical pathology, and in Calcutta, India (with a former HMS'er, Steve R. Smith '63), on endocrinologic responses to severe malnutrition. These experiences were inimitable opportunities to apply public health study and to learn tropical and endemic medicine.

The same pinball player I mentioned previously asked a group of us 'Fivers' whether we regretted the extra year. The response was an emphatic, "No!"

This trend toward taking an extra year in medical school will surely continue: the extra degree programs all require five years; the students are becoming more diverse and imaginative; and the Core Curriculum lives. By no means will this trend supersede the traditional four years or the new programs for less time in medical school, but all the possibilities will complement one another in the new flexible-Flexner patterns of medical education.

Is There Life After Medicine?

by Mark S. Hochberg '73

A century and a half ago, a young surgical intern from Guy's Hospital in London finally received a night off after being on constant duty for four days. Rather than going directly to bed — as his contemporary counterpart would do — he paused to re-read Shakespeare's *King Lear*. The mighty drama had haunted him since he first read it. Immediately upon finishing it, he sat down and wrote a sonnet which he entitled, "On Sitting Down to Read *King Lear* Once Again." Dr. John Keats never practiced surgery again. He decided at that point to devote himself entirely to poetry. Parenthetically, his decision may also have been influenced by his Chief of Surgery, Dr. William Lucas, whom Keats described as "not overburdened by brains and whose operations were generally badly performed and accompanied by much bungling."

Let me first re-assure the Dean and the Faculty that the aim of my talk this morning is not to lure my peers away from medicine and into poetry!

Rather, my purpose is to implore my colleagues to continue their nonmedical education; to explore beyond the confines of medical knowledge; to nurture a liberal education throughout life.

We have been carefully honed and tuned throughout our HMS experience to make complex medical decisions. However, Harvard cannot equip us with the wisdom to make the equally complex moral decisions that confront us. There is no better preparation for making these judgments than an active interest in the humanities and arts.

Daily we are faced with these moral issues. How much should we inform a patient when a diagnosis of cancer

or other lethal disease has been made? How long and how vigorously should we pursue the care of a patient with terminal cancer or a clinically dead brain? How long should we sustain a life preserved solely by our miraculous machines? To whom should we give a kidney or a heart? Anguishing decisions have to be made.

Answers to these searching questions are not found in medical books, not even in our precious Harvard lecture notes. We must face these questions ourselves, alone, in the solitude of the night; on a ward whose quiet is pierced only by the incessant tenor of an EKG monitor; under the bright lights of an operating room.

Only a continuing liberal education parallel to our scientific training can provide us with the vision to examine these problems in perspective. Such a continuing humanistic orientation will enable us to "bear all naked truths, and to envision circumstance, all calm," which is, as John Keats perceived, "the top of sovereignty."

Unfortunately, many of us are beginning to find our professors, and more frighteningly ourselves, more insular and narrow in our world view. Like a giant leviathan, medical school has the ability to devour our time, frequently leaving us strained, exhausted, and unable to enjoy the free time available.

We arrived at HMS from a college experience that gave us large amounts of free time, many opportunities for contact with people and personal exploration. There, the learning process was essentially self-directed.

Conversely, we arrived at medical school where, of necessity, we were faced with very little free time, few opportunities for contact beyond medicine, and a learning process extensively controlled by others.

We lost touch with our previous, nonmedical world. We were thrust into a world of new words and diseases that required inordinate amounts of time. We began to perceive changes in ourselves, sometimes subtle, sometimes quite drastic. Our circle of friends rapidly became restricted. For some, constraints on our time by lectures and studies were overwhelming. Motivated by a real desire to learn this vast material to better help our patients, we continually worried that we would not assimilate the information needed to become competent physicians. In this process, we unconsciously permitted our nonmedical interests to slide.

The demands on our time began to preclude previously normal activities; we would go for days without reading a newspaper or hearing the news of the day, or much more sadly, without enjoying the news of one's family. Things got worse, not better. The dehumanizing process subtly, imperceptibly, marched on. Athletic activity waned; visits to museums, the symphony, and even ball games became major undertakings; or more commonly, simply neglected. We became isolated, both physically and intellectually from our nonmedical peers. The demands on time and energy made it difficult to share experiences with those outside of the medical community. We had less time to read what they read, to go where they went, to do what they did. Our world was now the hospital, a world whose very smell is alien to our closest college friends. The political and philosophical rhetoric of the college "bull sessions" that had helped us mature several years ago, seemed useless and foreign in the swirl surrounding the emergencies of treating diabetic ketoacidosis or answering a code call. Similarly, our subscriptions to the *Saturday Review* and the *Atlantic Monthly* became dusty piles stacked unread in a corner, and the

New England Journal of Medicine was much more likely to be found on our bedside reading table.

The isolation was reinforced by the recognition by our nonmedical peers that we had become somehow different from them. They felt our expertise was in a foreign and mysterious area. They became put off as we continually refused dinner invitations with the excuse of "I'm on call." If we managed to join them, the conversation was either about a recent patient or else embarrassingly trivial. Worse yet, we might well honor our nonmedical hosts by falling asleep during the second course.

How can we cope with this increasing isolation from our friends — and from ourselves? Usually, we offhandedly wind up explaining to parents, dates, or wives that when "I get out of medical school, things will be different." This is true. After four years of medical school, internship, and residency, things do change — they go from bad to worse. We can all remember social gatherings at doctors' homes over the past few years — physicians many of us wish to emulate. More often than not, the conversation turned to patients and their diseases. At these social gatherings we found ourselves reducing human beings to their component parts and a series of abnormal lab values. Instead of viewing our patients as human beings with individual capabilities and aspirations, we found ourselves referring to "the myocardial infarction in 304" or the "pheochromocytoma in the Bulfinch." Without depth or breadth in nonmedical areas, today's doctor may be the ultimate non-Renaissance man.

As doctors, both for the benefit of our patients and ourselves, we are obliged and even obligated to lead more human lives. By bringing the depth of the humanities into our world, we can become more effective doctors, and equally important more effective people.

Otherwise we will contract a disease first reported by William Osler. He said: "Intellectual infantilism is a



Dr. Hochberg

well-recognized disease; and just as imperfect nutrition may cause failure of the marvellous events which accompany puberty in the body, so the mind, too often fed on the same diet of medicine, may be rendered rickety or even infantile."

We all have the capacity to be doctors. But, to be truly effective physicians, we must be aware and overcome the isolation from our non-medical peers. An isolation towards which we are slowly, but inexorably sliding. We must revolt against the easy path of narrow professionalism. As Abraham Lincoln admonished: "The dogmas of the quiet past are inadequate for the stormy present."

But, on the eve of starting our rigorous internships, can we take the time to broaden our humanistic interests? I think we can, and moreover, we must. Only in this way can we be more effective doctors and become more effective people. We have an obligation to our patients to be human, we have an obligation to our loved ones to be human, and we have an obligation to ourselves to be human.

Clearly the path is fraught with difficulty. While we have little control over the quantity of time we shall spend in medicine, our concern must be the quality of the free time we do have. We must make a conscious effort to utilize our sparse free time fully, in order to live fully human lives. It is easy to let our non-medical life slip into one of mediocrity, a trait that will slowly devour even our medical career. However, if we assiduously demand excel-

lence from ourselves, we will preserve a life after medicine. It will not be easy, but there is precedent on our own faculty of careers that go beyond medicine. Faculty members have done such diverse things as play violin solos with the San Francisco Symphony, start corporations which have grown to industrial giants, win national awards for raising roses, and even play tight end with the Green Bay Packers.

The most important goal for us is not simply to pass as good physicians, but rather to surpass as physicians and as human beings. The initials M.D. are not a ringing accolade, but an awesome responsibility. We must seek to couple our scientific excellence with the ability to think and to feel in areas of experience beyond the merely scientific and analytic. Finding the human values in medicine is finding, in reality, a balance of scientific excellence and human understanding.

If we do not achieve this balance, we will end up becoming expert in treating disease, but inept in treating people.

So, dust off the old *Saturday Review*, renew your subscription to the symphony, sharpen your ice skates, and re-read King Lear.

We are indeed an elite group, but elitism has its own heavy responsibilities. If we do not make unique and important contributions to life, we are betraying that elitism. I can think of no more important wish for us than that we avoid being narrowly institutionalized in medicine; That we make our marks as innovators, creators, and thinkers, and more precisely as truly human people.

Is there Life after medicine?

The choice must be made today; it cannot be made later. The answer may well reside in what I consider to be the most powerful thought in the Bible:

I call Heaven and earth to witness against you this day. I have set before thee life and death, the blessing and the curse. Choose life.

The Class of 1973: A Perspective

by Donald S. Weaver '73

The world and our nation have seen many changes since September of 1969. Hopefully, we have seen an end to the war in Southeast Asia. Health care and its delivery are receiving increasing emphasis from more segments of the population. The Class of 1973 has also undergone many changes since September of 1969. In some respects, it has been a long four years; yet, in other respects, it has been a very short time.

If one were to try and gain a perspective of our class, an essential word would be relevance. With such a short time to grasp the expanding field of medicine, the Core Curriculum was designed to teach us the relevant aspects of medicine. And who can forget Dr. Paul Draskoczy's use of a 3x5 card with "relevant" on it to stimulate our 1:00 post-prandial brains to learn some pharmacology?

The Class of 1973 is composed of a variety of individuals, and relevance has a different meaning for each member. From the first weeks of our existence, when we decided that one person to head our class was not possible, it became evident that a variety of ideas and backgrounds were being represented.

For many in our class, learning about the problems of the community and the cry for health care in the inner city added to their education. Others were willing to teach the rest of the class about these problems. And still others participated in community health clinics or mobile vans, providing health care to needed areas.

For some, the call to the laboratory for projects both large and small took on relevance. No one is making plane reservations for Stockholm yet (at least to my knowledge), but the experience gained was invaluable.



Dr. Weaver

Serving on faculty committees filled many hours of student time. Their endeavors were aimed at improving Harvard Medical School for their class and for future classes. This is frequently a thankless, but very important, contribution.

There were a variety of other areas of relevance for various members of the class. These ranged from class shows to helping govern Vanderbilt Hall; from being a bonafide bleacher bum at Fenway Park to planning social events for the class. And who can forget the relevance of "spare time" for fishing and funning!!

No matter what were or are the areas of relevance for each member of the Class of 1973, it is fair to say that most of us are heading into the next stage of our training anxious

and a bit apprehensive. We are heading into a changing medical world that will require physical stamina, proper use of our fund of knowledge, a social awareness, and a religion of sorts — that is, a concern for and belief in our fellow man.

If I were to address a class such as ours some 50 years from now, I might phrase my feelings like this:

"It is 30 years since the class with which I graduated in the old school on Boylston Street was in your present mood, no less uneasy than you may be about the future and its unknown responsibilities. We still meet occasionally, as I trust you will come to do, for class reunions serve to show in the most cases the truth of the poet's saying, 'that success lies in the silences, though fame be in the song.' Those of whom perhaps least was expected and of whom least is heard, in many instances have gained the greatest happiness in their professional life, in which there can be no finer reward than to deserve the confidence and earn the gratitude of one's patients. Contentment after all, consists merely in doing the best you can, with what you've got, wherever you may happen to land."

"My" projection for fifty years, is not mine at all. These were the words of Dr. Harvey Cushing addressed to the Class of 1926 upon their graduation. Yet, his words have a message for the Class of 1973 as well. No matter what the area of relevance turns out to be for each and everyone of us, the challenge is do to the best we can with what we have. Hopefully, then, we will be able to deserve the confidence and earn the gratitude of our patients.

For some, it was just too much.





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Memoirs of a Medical Student

by Linda M. Covell '73

"The people are real; only the faces and bodies have been changed to protect the guilty."





PHILLIPS HOUSE



... AND MY FIRST PATIENT HAD TO LEAVE FOR AN X-RAY, AND THE NEXT WAS IN THE SHOWER, AND THE NEXT TOOK ONE LOOK AT ME AND SAID "I AIN'T GONNA BE NO GUINEA PIG FOR NO MEDICAL STUDENT" ...



I.T.C. Blues

Alumni Notes

1912

Clyde H. Tearnan has retired to Albuquerque and sends best wishes to his classmates.

1920

James Hitchcock is "still in the ring, if a trifle groggy. Believe it or not, I'll soon be moving to Francetown, N.H. in the meanwhile, I am watching ruefully the rise in prices, and gleefully, the decline of R.M.N. *Wanted*: A world leader with imagination and compassion."

1921

Philip D. Woodbridge writes: "I seem to be a living example of how a guy well along in his 8th decade can have coronary insufficiency, intermittent claudication, hypothyroidism, fractured fibula, defective hearing, exophthalmos, history of stroke, and now (March '73) a 3-hour reading of over 400 in glucose tolerance test, and yet have everybody say, 'You're looking well.' When not in the walking cast, I cut down trees and chop them up for firewood, play viola in two orchestras, drive a Saab around to Quaker committee meetings all over New England, and get an occasional letter published in the *New York Times*. (Of course I realize that maybe this body will be in the HMS anatomy lab by the time this report is published. I only hope the transformation will be rapid.)"

1922

"No news," writes Stanton Garfield. "I am still completely retired and our travels abroad will continue as long as we are physically able."

1924

Kenneth Blanchard recently returned from a 46-day cruise to the South Pacific on the brand new Norwegian *Royal Viking Star*. "A great ship and a great captain, an archetypal viking, who has sailed the seas for 40 years. The U.S. dollar was only worth 75 cents in Australia, which really hurts an American's pride, and also hurts Australian storekeepers, as the tourists will not buy. Australia owes us millions. Now Uncle Sam is talking about building up North Vietnam. How stupid can we be?"

James S. Hess is "now wearing a prosthesis from lower aorta to deep femoral arteries. The surgery was done by Dr. Michael DeBakey. I have gotten back circulation in both legs and otherwise, am in fair shape."

1925

Millard S. Rosenblatt still works nine-and-a-half months each year!

Wm. Niles Wishard, Jr. recently received the Ramon Guiteras Award, the highest award bestowed by the American Urological Association.

1928

"Having been retired some 20 years, there is little to report medically," writes Walter W. Boyd. "We travel and keep in touch with our children: Walter, Jr. is living in Helsinki with his family, working there and getting his Ph.D. in geophysics from the University of Edinburgh; Josephine is in Vancouver where her husband is getting his Ph.D. in French Renaissance literature and teaching at the University of British Columbia; John lives in Lausanne with his wife and teaches ecology at the University of Lausanne while getting his Ph.D. in

biology at the University of Zurich. It is a happy life with happy memories of my days in Boston, where I lived and married."

Carl J. DePrizio is "still looking for an HMS grad to inherit my surgical practice. No strings attached."

1929

Just off the press is Hildrus A. Poin-dexter's autobiography, *My World of Reality* (Balamp Publishing).

Norman W. Thiessen retired in March.

Harold Kellman gave his annual psychoanalytic seminar in Sweden last summer. He continues as dean of the Specialty Training Program in Psychoanalytic Medicine at the Postgraduate Center for Mental Health, and in the full-time private practice of psychoanalysis.

1932

Lester S. King has partially retired from the JAMA, changing his status from senior editor to contributing editor. He works part time and devotes the rest of his time to medical history. He is president-elect of the American Association for the History of Medicine, and will become editor of *Clio Medica*, an international journal of medical history, on Jan. 1. "All this represents semi-retirement."

Robert L. Patterson, Jr. has retired as surgeon-in-chief of the Hospital for Special Surgery and Professor of orthopedics at Cornell. He is now in consultation practice, and is still teaching and publishing.

1934

"The place is loading up with grandchildren and the bird-dog is looking better all the time!" reports Joseph W. Ferree.

Ellsworth M. Tracy has retired. He travels some and enjoys his farm "with enough to keep busy but not tied down."

1938

Richard S. Cosby is "still trying to do both practice, teaching, and research in cardiology, mostly through the Pasadena Cardiovascular Research Foundation and the Huntington Memorial Hospital with associates Dr. John A. Giddings and Dr. Jack R. See. Harvard men all over the place: Evans, Gentry '42, McLaren, and Hartwell."

Robert M. Smith is "still healthy and glorying in the wonderment of having been admitted to HMS in spite of being borne a white, male, American, New Englander, at that."

